

GAME OF THE YEAR



LARRY'S BACK



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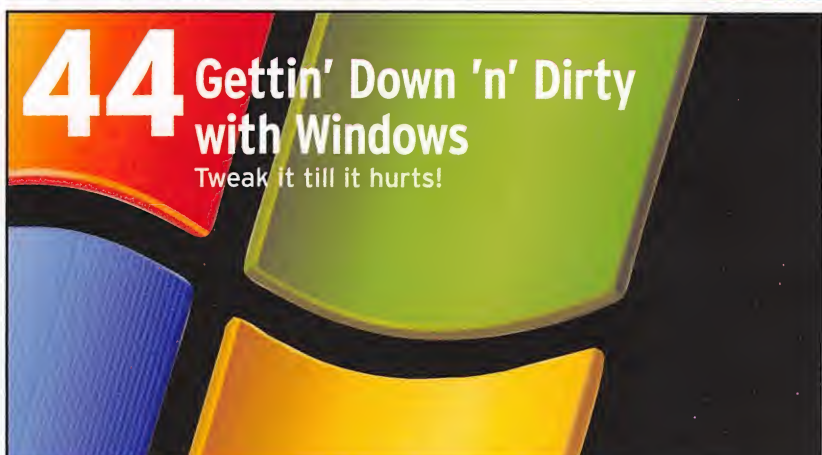
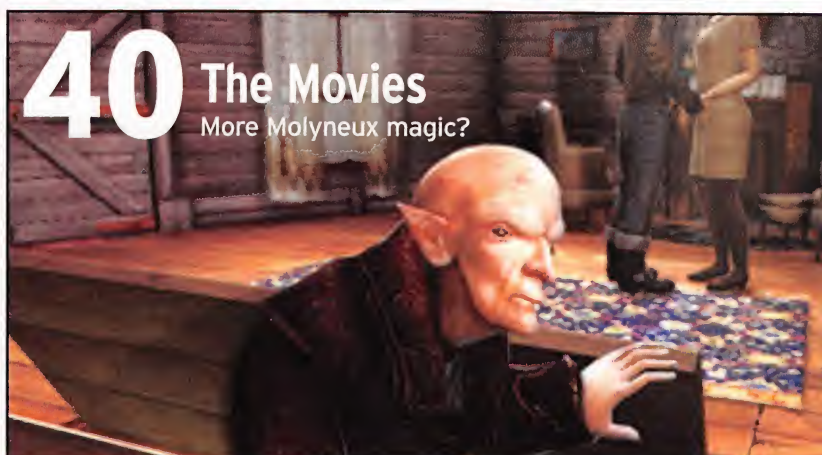
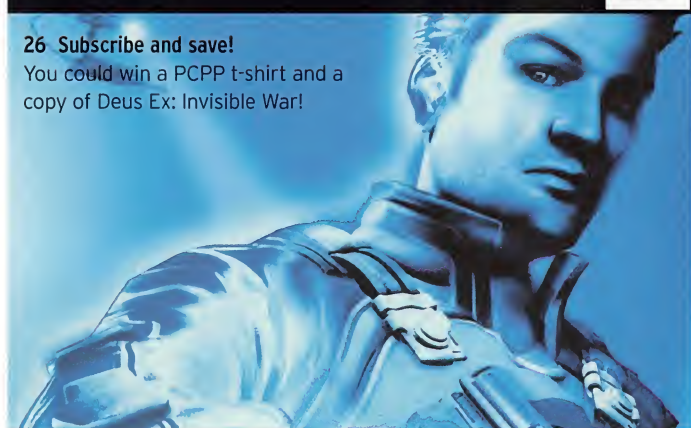


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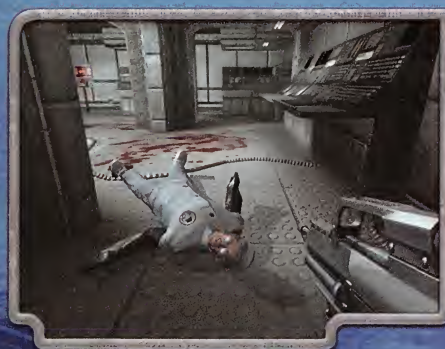




"Crytek has produced what looks like a next-generation blockbuster at its first attempt" - *The Australian*

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## And the winner is...



I hope you like the cover this month. Or indeed, the covers, plural. No matter which edition you picked up you'll no doubt have noticed something about the mag that looks a bit, well... different. For the DVD owners, let me mention the CD cover focuses on our Windows Tweak Guide for Gaming feature (page 44) and our Mini PC PowerTest (page 65), making it our second non-game cover in succession. Meanwhile, CD purchasers will have missed out on our original Freedom Force comic book cover concept - a nice change from the typical 'rendered game dude looking hard' artwork you usually see on a games publication. Taking both covers into account, you can see how they

combine to reflect the key strengths of PC PowerPlay. It's all about those three words we have running under our masthead: Games, Hardware, Technology. If you love games like we do, then you've got to love the hardware that lets you play them. Hardware is a means to an end - that of playing some awesome games to their fullest - not an end in and of itself. PC gaming isn't about pointless benchmarking results. It's about playing games and enjoying the gaming experience. And that's what PCPP is all about.

Speaking of games - and especially games you enjoy - just a few pages over (page 11) we present the results of your Game of the Year awards. Without wanting to spoil the surprise, let me just say congratulations to (*Snip! - Ed*) and (*Snip! - Ed*) for scooping the coveted best game award. Well done lads!

Now, let me get back to that Far Cry preview code...

David Wildgoose,  
Editor  
davidw@next.com.au

### The ones to blame:



David Wildgoose  
EDITOR  
"So long and thanks for all the (Eliot) Fish"

Playing: Far Cry



Prumpy  
THE DWARF  
"I've got a luvverly bunch of coconuts..."

Playing: Statues. Can't stop.



Daniel Wilks  
SENIOR WRITER  
"What the #\$%! is wrong with Japanese people?"

Playing: Hordes of the Underdark



Bennett Ring  
DEPUTY EDITOR  
"I'm feeling a little shakey..."

Playing: Far Cry



Ruth Barbato  
ART DIRECTOR  
"So, what seems to be the problem?"

Playing: Google



Timothy C. Best  
SENIOR WRITER  
"I can't go to the US 'cos Bowie's touring"

Playing: URU Live. By myself.



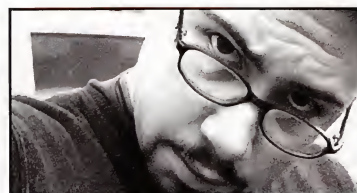
Amos Hong  
DISC EDITOR  
"What about me/It isn't fair/I've had enough etc"

Playing: Guy's arch rival



Joel Graham  
ADVERTISING MANAGER  
"Anyone for Halo?"

Playing: Halo. Obviously.



Anthony Fordham  
SENIOR WRITER  
"Three pages?!?"

Playing: Invisible War

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# INBOX

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## HEROES

Atari is offering a free Heroes game to the author of every letter published in Inbox! This month's game is Soul Reaver 2!



### ORDERED A SUPREME

Stardate log 623, 9:01am: Woke up early and feeling excited (*Happens to us all, mate - Ed*), today was the day that I purchased my monthly game.

10:19am: Arrived at the local Harvey Norman store and made my way to the games section.

10:25am: After careful analysis and consulting my secret information (PCPP review of Knights of the Old Republic) I decided that I would give it a shot.

10:30am: Couldn't wait to get home so I opened the package in my car. I was glad to find that they didn't cheap out on the packaging.

10:45am: Started installing the game and reading the manual while I wait.

10:50am: Started the game. 3:20pm: Stopped for a toilet break and grabbed another 2L coke.

7:35pm: Started to feel a little shaky and I remembered I hadn't eaten all day, but making something would just take up precious time so I ordered a supreme pizza. 8:00pm: Heard a knock on my door that was probably the pizza man but I just upgraded my lightsaber and wanted to try it out so I ignored him. 12:36am: Another toilet break and another bottle of coke. 6:00am: Sun started coming up so I thought I better grab some Z's at least until 10:00 so I can repeat the day.

MasterYoda

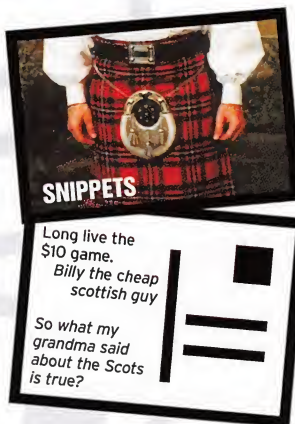
*Who said the gaming lifestyle wasn't a healthy one?*

### HACK THE KEY

I have at home two computers networked for gaming purposes with mates and family members. We have a real blast though I have noticed I am getting more into trying to hack a game just so we can play it in multiplayer and avoid having to go out and buy two copies of the same game. For

example, I bought C&C Generals Zero Hour, installed it on both computers and started up a multiplayer game only to get that damn "Your key is already being used" message. Now what I might be doing is wrong, but there's just no way in hell I'm going to go out and buy another copy just so we can play it over a two computer network at home. This is where I think they should allow the games to be played over a two computer network with having the same key. What does PCPP think about this? Would you go out and buy two games instead or just hack the key? I know there are key generators you can download, but I shouldn't have to do this if only for home use. Plus I don't like having to resort to that. I don't even like having to hack the key. The game developer should allow it to be play over two computers, for all they know they could be turning honest gamers into warez wannabes!

Frank Slavich



*Spawning multiplayer games from one CD used to be fairly common - and now more notable in its absence, perhaps. Meanwhile, your situation does seem silly since pirates are going to steal the game regardless, so such copy protection methods invariably only hurt the honest gamer. Yet we can completely understand EA's decision as well. Maybe it's time for another look at this whole issue in a proper feature...*

### UNCOORDINATED SISTERS

My family recently bought a pretty good computer. Originally I had it to myself, since no one else in my family played computer games. After a



while it got boring just playing it by myself, and my best friend's mum played their computer when I was over there, so I got my dad to play Medal of Honor. That's the worst thing anyone can do. First it was that then my uncoordinated sisters got The Sims for their birthday. Suddenly we had days that were allotted to us for the computer. It was still ok then, because it was only me and my sisters. Until Mum bought Tiger Woods 2004 for Dad at Christmas. Now I'm lucky if I get anytime on the computer. And seeing as I don't have any new games, I can only really go on the net and listen to music. Please, feel sympathy for me and publish my letter, a brand new Heroes game would make it so much better.

Dean Campbell

*A sly ploy to gain our sympathy, Dean. But a successful one...*

### SCREAMING KIDS

I was amused at the letter regarding useless store attendants in PCPP#96. I am a store attendant at a well known software chain. As such, I am often put into a

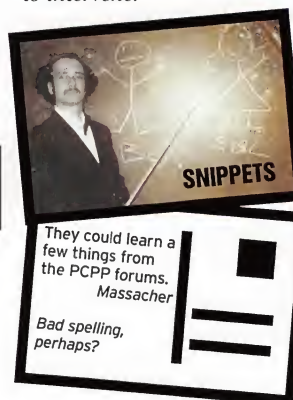
To ensure you receive your Atari Heroes game (or to save us from chasing you up!), please include your full name and postal address with every letter or email you send. Thanks!

situation where you can't laugh, smile or alternatively strangle the person you are speaking to. If you think the occasional useless sales assistant makes you annoyed, can you imagine being on the other end - where sometimes, the amount of useless customers far outweighs the normal, level headed sort. Bad Breath. B.O. Close talkers. LOUD Talkers. Spitters. Screaming kids. Hagglers. "Customer-is-always-right" types. Or all of the above rounded up into a single customer (or family). From the sounds of it, you'd probably think I didn't like my job, but it's actually fantastic - especially when someone comes in and says thanks for the help, or that the game was really good. These things make a store attendant's day. So please, bear this in mind when you come shopping. I won't ever sell you Spy Hunter, just as long as you don't sneeze over me while I'm talking.

Saxon's Master

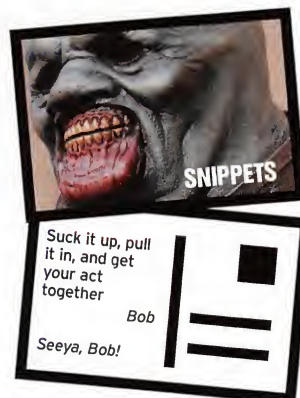
P.S. I find PCPP very useful in recommending games. The reviews are very helpful and make our job so much easier. Oh and I had someone actually want that Marine Sharpshooter game... Crazy.

*That's okay. We actually saw someone buy CTU Marine Sharpshooter at the local Harvey Norman. We were too stunned to think to intervene.*



### GREY ZONE

I'd originally decided to send you this letter to draw your attention to a great looking new game in development called Wish. There are not a lot of details out about it yet (I'll get to that in a moment) but from the concept art and screenshots available at [www.mutablerealms.com](http://www.mutablerealms.com), this game certainly looks



very swish, and it would be well worth your while to have a look. Anyway, to my point: The developers of the game, Mutable Realms, have made the decision to keep all details regarding the story and background of this game secret, in order to have the world be something that players are able to explore and discover for themselves. This move is interesting to me, but in an age where everyone expects to know everything about everything, are they dooming themselves to obscurity? It's certainly an argument that has gone on for as long as the so-called 'information revolution' has existed, and there are various viewpoints on the issue. I for one am all for it, as I really enjoy discovering the history and politics of a game world for myself; I played Planescape: Torment with absolutely no prior knowledge of the



game, and was therefore able to discover Sigil, the Planes and its varied characters alongside the Nameless One, and it has consequently become one of the most cherished and memorable gaming experiences of my life. You good folks at PC PowerPlay find yourself in a unique position. Being reviewers, I assume you'd find it hard to know all there is to know about a game when it comes time to write your articles, as I presume you'd be getting review copies of the game before it has become available to the public (and therefore 'spoiler' sites). Having said that, however, I would imagine that in-depth knowledge of the game world would greatly assist you in writing your articles, and this is quite often provided by the developer of the game in question. Being neatly placed in the grey zone of the need for knowledge and the desire to discover it for yourselves (if indeed you DO want that), I'd be very interested in hearing your opinion of this decision by Mutable Realms.

Toby Ervin



*Great question, Toby. Pre-release hype is a dangerous game. Too much and people get tired of it; too little and no one even notices the release. But obviously it's better to be closer to the former than the latter. Of course, to address the case in point, there's also more to a game than its story. I'm sure Mutable Realms will have plenty else to say about Wish besides its narrative.*

## ENOUGH MENTAL ENERGY

I must disagree with Peter Hootsen (PCPP#96), and if you look at the last letter on the same page you'll find the reason gaming for grown-ups

# FROM THE FORUMS

## Post subject:

### What would be your ideal game?

My ideal game would be a game in an office complex, and you just go around bashing office workers with whatever you can get your hands on such as pens, chairs, clipboards, cds, computers, tables, coffee makers, cupboard doors, glass shards after you have smashed something and anything else you would find in a office complex. If someone made a game like this it would be awesome.

Brendan the brendonian, Grunt

Fallout 3. Or an RPG that mixes the story of Torment, the length and quests of BG2 and the ruleset of IWD2.

Jefferson, Skaarj

A game that was a complete simulation of Life. You could do anything you wanted and it would have the most advanced engine, physics, graphics, everything.

Plank, Skaarj

Office shoot out. Brendan knows what I'm talking about. Use any part of the office and hunt each other down. Go the keyboard.

RenegadeX, Tiefling

I reckon a game that is completely crazy and different, a mix between an RPG and a FPS... except it's crazy like Alice. Here's an example:

You are a clown, and you live in the future...

(Everything else censored - Ed.)

Mick Dundee, Avatar

## Post subject:

### Crates!

Bloody crates.

NFi, Dungeon Keeper

Planks are the way of the future. Barrels are the most evil of the three. Planks and crates must one day unite to bring down the barrels and reclaim the throne that they rightfully deserve.

Plank, Skaarj

## Post subject:

### Jedi Outcast VS Jedi Academy

Ok People, Both of these games are mad! And both have light sabers in them. But which is actually better? I mean JK2 was mad and I played it for ages, but when I got JA I stopped, uninstalled JK2 and played JA.

Bomer, Grunt

I'd have to say both games were rubbish.

Lord Panda, Templar

A bucket of crap vs a bucket of puke... which will win? No one who plays either game in my book.

EIPresidente, 007 & \_

## Post subject:

### Did u know that porn games exist?

Mind you they were very pixelated boobies which took all the fun out of it.

Hothead, Skaarj



is probably NOT going to blow up, unless things radically change in our society. Most people don't have much time for gaming, what with work and social obligations. When I come home at the end of the day I have barely enough mental energy left to slump in front of the TV and stuff myself with cornchips. In that state, TV is ideal because it entertains without requiring any effort on my part. Gaming requires more alertness than I can usually muster on a weeknight. I suspect most working adults who play computer games manage to set aside a couple of hours on the weekend, and that's it. Consequently, they don't represent as big a market potential as you might think. This situation might change if (1) unemployment rises dramatically, (2) cheap,

legal, non-harmful "pep" pills become available, or (3) designers start making games with this time-poor market in mind. That would mean games with a shallow learning curve, where you can play in sessions as short as half an hour without a great feeling of discontinuity, but where the player, in such a short time, can still get a satisfying feeling of game "depth". Otherwise I think gaming will continue to be seen as "kid's stuff", not because the content is immature, but because only kids have the time to really get into it. Well, kids and gaming journalists.

Neil Ford

P.S. I like Tim Best's idea for a force feedback mouse, but am worried that, if I took my hand off it for a second, it might bounce off the monitor and hit me in the forehead.

*Some legitimate concerns there, Neil, particularly the mouse one. Apparently 80% of purchased games are never played to completion. Perhaps that's one reason why most narrative-based games are getting shorter.*



I highly recommend this to everyone unless you aren't a fan of course language, hint hint... Ryan Norris

Uni courses? Water courses?

## BOOED RIGHT OUT

It's hard to believe so many people are blind to a very real threat. Many people have their hopes up for games like Half-Life 2



and Doom 3 before they knew anything about them. People tend to forget that high expectations are constantly crushed due to developers speeding up production because of these expectations. This is especially the case with big names as they have released something before that did very well due to an innovative idea. These ideas are all but gone and more than enough of them have been wasted on some very stupid games indeed. With this most awesome title comes plenty of fans and soon the developers are raking in the money and are planning their next big title. Their heads are so inflated now that they are invincible and can make anything without any worries. Their next title is released and it is booed right out of EB's fantastic

new, expensive games section and into the bargain bins where, at a later time, some poor child will receive a very poor and badly conceived game for their birthday. This is present in games like Freelancer - four years and it still wasn't what it was supposed to be. I'm not saying that Half-life 2 and Doom 3 will be bad games; I'm just saying that they might not be the games they're meant to be. So keep and open mind and don't rush out and buy them because they're the new big thing, wait for some good reviews in your favourite mags and perhaps a demo or two. Remember, great expectations lead to great failures.

Josh Upton

*It's certainly true that no game is guaranteed to be good while still in development. We need the finished product to determine this - ask anyone who raved about Freelancer after seeing it at E3 years before release or anyone who played Half-Life even six months prior to it hitting stores. But you can feel more confident in some titles than others, especially based on a particular developer's track record. Both Valve and id have earned that confidence over a number of years.*





# Insight

## LEARNING FROM XBOX

Finding friends to frag made easy

Bennett Ring

While it's easy to diss the Xbox as being nothing more than a crippled PC, those who have played the Xbox Live service have nothing but good things to say about it. In fact, a recent survey found that approximately 96% of Xbox Live subscribers would recommend the service to their friends – approval ratings like this are simply unheard of in the gaming industry. One of the best features of Xbox Live is its Friends feature, which allows you to add mates to your friends list, and then see exactly which game they're playing while they're online. You can then join that game or invite them to join your game at the press of a button. Strangely enough, there's not much on the PC that allows you to join your buddies quite so easily.

Instead, it's usually a case of sending a message via your instant messaging client to your pals, telling them to join a certain IP. Unfortunately, by the time everyone's read the message, scavenged around their cluttered gaming desk for a pen and paper to write the IP down, and then joined, the server has probably already filled up, or there's some other problem. Basically, it's a major pain in the ass to co-ordinate. Well, until now, that is...

Welcome to Xfire, an instant messaging application designed with gamers in mind. Like ICQ and

Messenger, Xfire is available free of charge, and has a few features that definitely make it worthy of your consideration.

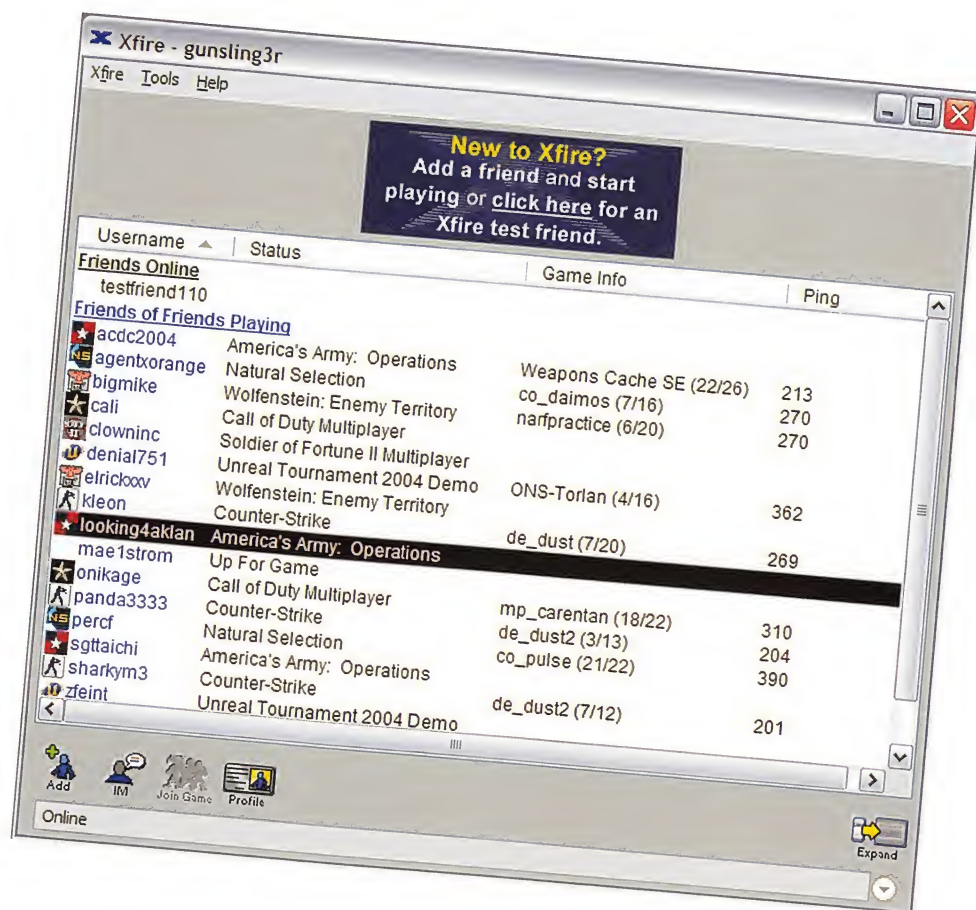
The handiest of these is the instant joining feature. If your buddy is online and in-game, Xfire displays the game title, as well as the server details that they're playing in. With a single mouse click you'll be in their game, ready to deal out the hurt without having to go through the hassles of synchronising your joining process.

This feature alone makes Xfire a must have IM client, but it also

solves one of the other problems that occur with ICQ and Messenger – pop up notifications when somebody sends you a message. Depending on the game, the result of these pop up messages can either be a mere inconvenience or a game crashing tragedy. Xfire takes care of this problem by storing all messages while you're gaming, which can then be read when you exit out to the desktop. Nice.

Xfire is still in its infancy, but we've got a feeling that it's going to become the number one instant

messaging client for gamers. Further down the road the developers of Xfire are planning to incorporate voice communications, a feature that can only make this application even more desirable. There's only one small hitch, and that's the inclusion of advertising, but it's a small price to pay considering the client is free. Head over to [www.xfire.com](http://www.xfire.com) to grab the free download, and start spreading the word about this handy little application.





# GAME OF THE YEAR

Ladies and gentlemen, the winners are...

As voted by you



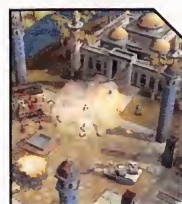
## Overall Game of the Year

- 35% Call of Duty
- 24% Grand Theft Auto: Vice City
- 15% Knights of the Old Republic
- 10% C&C Generals
- 5% Max Payne 2



## Best Shooter

- 65% Call of Duty
- 12% Max Payne 2
- 6% Raven Shield
- 6% Tron 2.0
- 4% Halo



## Best Strategy

- 64% C&C Generals
- 19% Rise of Nations
- 12% Sim City 4
- 3% War of the Ring
- 2% Homeworld 2



## Best Sports

- 40% Tony Hawk 4
- 19% Pro Evolution Soccer 3
- 15% Championship Manager 03/04
- 10% NHL 2004
- 10% Tiger Woods 2004



## Best Sim

- 43% Freelancer
- 23% Flight Sim 2004
- 14% Lock On: Modern Air Combat
- 11% IL-2 Forgotten Battles
- 4% Trainz 2004



## Best Racing

- 29% Midnight Club 2
- 26% V8 Supercars
- 14% Need for Speed: Underground
- 11% Moto GP 2
- 11% NASCAR 2003



## Best RPG

- 77% Knights of the Old Republic
- 6% Gothic 2
- 5% Arx Fatalis
- 5% Temple of Elemental Evil
- 4% Lionheart



## Best Action/Adventure

- 67% Grand Theft Auto: Vice City
- 13% Prince of Persia: Sands of Time
- 8% Return of the King
- 7% Splinter Cell
- 4% Silent Hill 3



## Best Online Game

- 52% Desert Combat
- 21% C&C Generals
- 10% America's Army
- 3% Call of Duty
- 3% Shadowbane



## Best Expansion Pack

- 53% C&C Generals: Zero Hour
- 28% Warcraft 3: The Frozen Throne
- 7% Neverwinter Nights: Shadows of Undrentide
- 4% Civilization 3: Conquests
- 4% Medieval Total War: Viking Invasion



## Best Mod

- 49% Desert Combat
- 24% Counter-Strike
- 13% Real GTA3
- 10% Eve of Destruction
- 2% Natural Selection



## Worst Game

- 24% CTU Marine Sharpshooter
- 20% Tomb Raider: Angel of Darkness
- 17% Hulk
- 15% Judge Dredd: Dredd vs Death
- 9% Firewarrior



# BATTLEFIELD

## VIETNAM



[www.battlefieldvietnam.com.au](http://www.battlefieldvietnam.com.au)



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GAMING EVENT OF THE YEAR!

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**[www.battlefield.cyberslam.com.au](http://www.battlefield.cyberslam.com.au)**

Register before 9am EST May 1st 2004.





## FAR OUT



German studio CryTek had its offices raided this month by police searching for pirated software. Fortunately for the developer of Far Cry, no charges were brought and the team was able to continue work on the eagerly awaited shooter. Phew!

## MOD PROS



Digital Illusions, the developer of Battlefield 1942, has signed an agreement with Trauma Studios, the mod team behind Desert Combat, to collaborate on future projects. Although no official announcement has been made, we'd be surprised if Trauma wasn't assigned to a Battlefield Vietnam related project.

## ARSE CAM

In surprising news, Eidos has revealed that Thief 3 will not only be called Thief: Deadly Shadows instead, but it will sport an optional third-person perspective. Remember that it's optional, kids! So you can play it like Splinter Cell, watching Garrett's skinny arse, or in first-person just like the Thiefs of yore.

## ATI STREAKS AHEAD

Or to be more accurate, gains narrow lead over nVidia

Anthony Fordham

An analysis of the 3D hardware market has revealed 3D underdog ATI has finally won back its traditional lead over arch-enemy nVidia.

Thanks to rising success in the portable 3D market, ATI now holds 24.9 per cent of the market over nVidia's 24.7 per cent.

Market watcher Mercury Research took a look at 3D chipset sales for Q4 2003 and came up with the results.

So should you be turfing your new GeForceFX and running to grab a Radeon? Probably not, since ATI's lead is so slim and the analysis looked at the whole market, not just performance 3D video cards.

While ATI and nVidia may be eyeing each other warily, Intel continues to streak ahead in the market overall, thanks to the ubiquity of its integrated chipsets. The CPU giant took 31.7 per cent of the market, leaving only a few measly percentage points for obscure alternative chipsets.

Intel's share was down 3.3 per cent from Q3 2003, while ATI was up 3.9. nVidia, despite having to wade through comparison article after comparison article screaming about how ATI's Radeon was the new gamer's card, held steady, losing only 0.3 per cent of the market.

Of course, when you break down the statistics, you find that nVidia did lose significant ground in the



standalone 3D graphics market, and most of that was indeed to ATI's cheaper, better performing range of video cards.

Meanwhile arch-underdog and one-time champion of 2D gaming Matrox continues to languish at the bottom of the market, thanks largely to its disastrous Parhelia boondoggle.

## PHANTOM LOOKING MORE SUBSTANTIAL

## Hiring Credibility

Timothy C. Best



Infinium Labs has hired ex-Xbox co-creator Kevin Bachus to be its president and chief of operations. That's quite a promotion! He'll be running the whole thing and after some of the wild hype, no-shows, and misinformation about the company, it's probably a good move to give the Phantom some form of credibility body.

Bachus was a founding member of the Xbox team and he put in a lot of conceptual work on that game

console. Pre-box he was the group project manager for DirectX which put him on the front line of gaming done Microsoft-style, and before that he even did some game development.

There has been a lot of industry scepticism revolving around a small, new company being able to

launch something as risky and expensive as a viable console system. Bachus says that the system is more like a DirectTV subscription service than your regular console and that a lot of Infinium's dodgy doings were a dance to get investors onboard - but now it's all happening there should be plenty big announcements in the coming weeks including details on an "All-Star" team for the project.

It still all seems a little weak, but at least we know that there's enough money there to convince an industry vet that it's not all smoke and mirrors.

## DEATH TO UWE

(In)famous game to film director threatens to shoot

Daniel Wilks



Somebody has to put a stop to the machinations of Uwe Boll, the man responsible for cementing the idea in people's minds that there can be no good game to film adaptations. Fresh from the disaster that was House of the Dead, a film that failed to even recoup its modest US\$12 million budget at the box-office, Herr Boll has just wrapped up work on Alone in the

Dark starring everyone's favourite washed up, drug rehabilitated 80s reject, Christian Slater (*I prefer Rob Lowe actually* - Ed).

If that pairing isn't bad enough, Boll has recently announced that he is sick of working on horror (most people who have seen House of the Dead would disagree with his assessment and call it a comedy of errors) and his next two films will be Bloodrayne and Dungeon Siege. Whilst a cinematic version of the leather clad, Nazi killing blood-sucker has a certain unnamable (in polite company) appeal, Boll's vision of the Dungeon Siege movie is nothing short of terrifying.

According to the German

director, he's currently working with an undisclosed number of screenwriters to put together a 250 minute, two part epic that crosses elements of Lord of the Rings, Conan and Braveheart. Keeping with the Misplaced Celtic imagery, Boll has expressed interest in approaching Mel Gibson for the lead role.

Considering the fact that the most famous faces to appear in his films so far have been a washed up German bit player Jurgen Prochnow, who hasn't had a good role since Das Boot and a strung out ex drug addict currently languishing on the Hollywood blacklist, his chances don't look to good.



# GAMES GETTING LESS VIOLENT?

## Darned Sims

Timothy C. Best

As we see Manhunt become the first game banned in New Zealand, several court cases involving GTA and game violence legislation circling in the US, the Entertainment Software Association has pulled out the claim that games are actually getting less violent... or that's the case with the good ones at least.

It quotes research firm NPD Group and its findings that the market share of "M" rated games fell from 13.2% in 2002 to 11.9% for 2003.

Furthermore it points out that of the top ten selling games of last year only one of them was "M" - at least that one was Grand Theft

Auto: Vice City, so it was a good, respectable "M".

In the US the top selling console games were Madden 2004, two Pokemon titles, the new Zelda, Need for Speed Underground and Mario Kart: Double Dash. No Xbox titles made it. On the PC front, EA kicked everyone's tail having seven of the top ten titles including four Sims outings as well as SimCity 4.

Games with an "M" rating generated almost \$US78 million revenue less in 2003 than it did in 2002, down from \$US910 million.

Now you could say that this was a trend, but I'd say it was a coup for EA and Nintendo, both of which generally steer away from "M" rated



games. With the Sims filling the PC Top Ten, and Pokemon, Mario and Zelda in up there for the consoles what do you expect? You also have to keep in mind that missing a U.S. "M" rating doesn't mean that game isn't violent. Titles like Matrix, and Medal of Honor have plenty of action but come in under the line.

## ASS PACKED



In its annual financial report, Electronic Arts revealed delays to two of its biggest 2004 titles, The Sims 2 and Medal of Honor: Pacific Assault. Previously scheduled for March releases, both titles are now not expected until later in the year (and probably much closer to Xmas). The good news is that Battlefield Vietnam is still on track for a late March ship date.

## TRAFFIC JAM



Driv3r, the stupidly named third iteration of Reflections' GTA clone that was 3D before GTA3 was 3D, has slipped. It's now due for release in June, as opposed to March. Which is okay, since we didn't even know it was due in March in the first place. Oh well.

## SOURCE LEAK

Valve has revealed the second developer to license its Source engine - the technology behind Half-Life 2. Arkane Studios, developer of Arx Fatalis, joins Troika (who's Vampire: Bloodlines is due for release early next year) in pushing the flexible Source code in bold RPG directions.

# TRACKING HL 2 TO THE SOURCE

## Men in Suits Get Into Action

Timothy C. Best

With the FBI and Secret Service involved, all we needed were the military in attack choppers and we could really have made Gorden Freeman feel at home.

A computer programmer, Chris Toshok, posted a web log - including a scan of the search warrant - detailing how his house was raided by the FBI with the Secret Service in tow.

Toshok says that the agents confiscated eight computers and various other equipment (including an Xbox with controllers... we know what they were planning that night) and under a warrant authorising them to seize "any and

all items and documentation, in whatever form, referring to, or relating to Valve Software, Half-Life, Half-Life 2, Team Fortress, Team Fortress 2, Counter Strike, and Condition Zero".

Apparently, Toshok was extensively quizzed about his ex-housemates who were known as the Hungry Programmers.

Since Toshok's blog it's been reported that several other people, known to peruse the Hungry Programmer's site, have also been raided at about the same time for the same reasons.

The FBI isn't saying much of anything about the raid, but if it all



happened as it appears to have, it would seem that a serious criminal investigation is in full swing.

Don't mess with Valve; it's obvious a bunch of guys in high places don't like having to wait for Team Fortress 2.

## AURAL PLEASURE

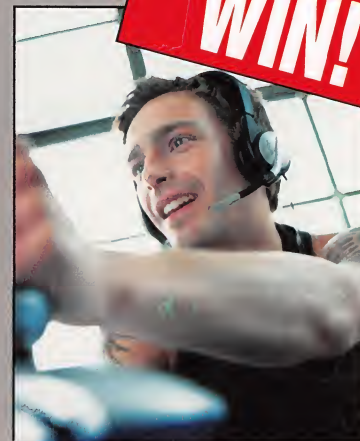
Thanks to Syntec International, we have THREE sets of Sennheiser PC150 headphones to give away to three very lucky readers. We reviewed the PC150s in PCPP#94, saying, "We don't often get excited about headphones, but the PC150s have changed all that" and awarding them an unprecedented 92% and Power Award. To be in the running to win, simply answer this question on the back of an envelope and send it to the address below:

**Q. What is the frequency response for the headphones on the Sennheiser PC150 headset?**

**Hint: The answer can be found on the Sennheiser web site at [www.sennheisercommunications.com](http://www.sennheisercommunications.com)**



Aural Pleasure  
PC PowerPlay  
78 Renwick St  
Redfern 2016



**WIN!**



# DEVELOPER DIARY

## S.T.A.L.K.E.R Shadow of Chernobyl

### Developer Diary #1

#### Who stalks the s.t.a.l.k.e.r?

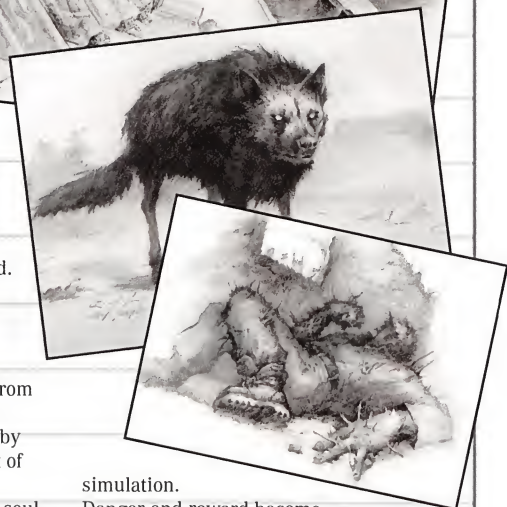
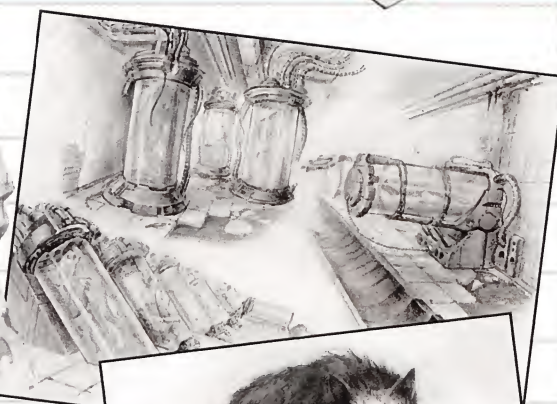
They believed the problem could be contained, that it had been contained. They believed a force with the power to poison the earth for hundreds of thousands of years could be caged. They believed they had the upper hand.

In 2006, the land shattered their faith as surely as it shattered the concrete manacles around the core. This was when the monumental failure of Chernobyl exploded all over again, resulting in an area of such instability that even its borders changed daily. They called this area the exclusion zone and marked it off limits to the general public.

This is a place where natural law has surrendered to the unnatural and where man is overwhelmed by the monstrous. People disappear daily and something, something beyond all definition,

stalks the wasteland. Science has few answers, preferring instead to leave this undiscovered country to the pickings of scavengers and nomads. And rich pickings there are to be had for those willing to risk life and limb. For these people there is the promise of artefacts unknown to the ordered world outside. Enormous rewards can accompany such discoveries. Enormous dangers invariably follow but these people, more hopeless than hopeful, have built their lives upon a shrug of the shoulders and the marching inevitability of mortality.

And so they started. And so they come: pouring through the cracks of society into this strange new world. These were the S.t.a.l.k.e.r.s: a race born out of necessity and opportunity to which the promise of action outweighed the threat of danger in a polluted land. To them, the shadow of Chernobyl was just another cloud in their lives. These people would do anything, from the honourable to the dishonourable – provided it was done with a mercenary twist. To be a S.t.a.l.k.e.r was to fully understand the value of life.



Existence went on for the S.t.a.l.k.e.r class. Against all odds, against all government efforts their way of life survived and mutated as needs demanded. By 2012, six years after the formation of the exclusion zone they had become spoken of in more than whispers. Would-be S.t.a.l.k.e.r.s made the journey from all over the world, drawn by the freedom, by the anonymity and by rumours pouring from the heart of the blackened land.

A new S.t.a.l.k.e.r, a hopeful soul (as even those without hope enter Chernobyl with aspirations) enters the exclusion zone with little knowledge of what to expect. This is the game. This is the Shadow of Chernobyl and objectives, plans and hopes are as changeable here as the local fauna. The one immutable fact of life is the need to survive.

Each S.t.a.l.k.e.r. makes his or her own decisions on how this is achieved. There are mysteries to the exclusion zone; mysteries that can be uncovered given enough time, and enough ability. But the mysteries are hidden behind more pressing dangers and more immediate opportunities. Mutation has taken hold here. Years of neglect have left nature (whatever that means in such places) with a free hand. Hunger and fatigue are fed by the continuing presence of the radiation to produce

abnormalities of massive and unpredictable proportions. The once familiar landscape of animals and humans has been perverted beyond all recognition. In a constant state of flux, the exclusion zone's borders see the shifting of monsters and S.t.a.l.k.e.r.s – each true to their own objectives, reacting to the presence of others through a highly advanced form of life

simulation.

Danger and reward become as unpredictable as reality leading to a richly interactive system of responses.

Every decision made in S.T.A.L.K.E.R Shadow of Chernobyl, whether it is by the player, by computer controlled S.t.a.l.k.e.r.s or the migrating menace of the mutated denizens, reveals an intricate fusion of storyline and open choice. How will you react to each new scenario? Will you lay ambushes or attempt open interaction with your fellow S.t.a.l.k.e.r.s? Will you follow the clues to uncover a conspiracy or work to increase your own standing, your own abilities in this dog-eat-dog world? Each step along a certain path both restricts and opens pathways. The exclusion zone's dangers are not always seen. Its conclusions far from certain.

**Alexei Sytyanov,**  
Game Designer,  
GSC Game World





# GEEK CHIC

## Could the vest ever be fashionable again?

Daniel Wilks

Secret police from around the world wear them. Undercover agents wear them. And now thanks to new solar energy technology, geeks can wear them too.

Scottvests are specially made jackets with a number of concealed pockets allowing wearers to hide any number of devices on their person that cannot be detected through standard visual means.

What does this have to do with computers? At the recent Consumer Electronics Show in Las Vegas, Scottvest uncovered their new fashion accessory, a jacket full of hidden pockets, networking gear and solar panels capable of charging batteries for mobile

phones, PDAs, MP3 Players and the like.

What is more interesting than the fact that the jacket can charge your tech is the inclusion of what is being called the Personal Area Network, a series of connectors sewn into the fabric of the jacket meaning that the wearer can connect multiple devices without having to worry about getting tangled in wires or not having the right connections for the job.

Before you rush to slap down your hard-earned cash on what could quickly become the technophile's version of the tuxedo, Scottvest currently only stocks non-solar powered models of the jacket.



There is no indication yet as to when the fully fledged cyber-jacket will appear on the market. At any rate you can expect to pay around AU\$1000 when they do finally become available.

## TOTAL RUMOUR



Rumours are flying around regarding a spiritual successor to Total Annihilation in the works at Gas Powered Games. This comes after a job ad was posted on the GPG website seeking artists to work on Dungeon Siege 2 and an unnamed RTS. Head Gas-bag, Chris Taylor was the lead on the original TA back in the day.

## MORE SIMS



SimCity 5 is in the works, according to Maxis' general manager Luc Barthelet. No shock there, then, considering the success of SimCity 4. The question is what new stuff will it have? Online multiplayer? Sims compatibility? How about SimCity: Underground, a game of sewage management?

# LET'S GET PHYSICAL

## Working Out Game-Style

Timothy C. Best



It seems that the stereotypical out-of-shape game slob is well and truly in the sights of certain hardware manufacturers ... and I'm not talking about a blistering ad campaign to eat right. No, this is much more interesting: gaming exercise equipment.

Powergrid, a US fitness company, has come up with the kiloWatt Game controller. It's just like your normal controller... except it's about the size of a treadmill and it has a hefty rod that you push on instead of a D-pad.

This rod flexes microscopically telling it how hard you are heaving and, just like the analogue controllers, the harder you push, the more response you get. Although it doesn't look like much the machine gives players an adjustable isometric weight workout and after a couple of minutes in the driver's seat you can really feel the burn in your arms and shoulders.

If you want to work your lower body, you're also in luck as Acclaim has just signed a partnership deal

with Reebok Fitness to develop titles for the CyberRider exercise bike. Flywheel sensors tell the game just what the rider is up to. Acclaim's street racing game, Juiced, will be the first off the ranks to support the technology. The fitter you get, the faster you pedal and the better your scores will get. "Who will buy these things?" you might ask. Well, I think that we're going to see a whole new era of negotiations between parents and inert kids which I like to call "No Pain, No Game".

## HASSELHOFF!

Oh god help us all. Davilex, the eminently talented developer behind such choice classics as, er... Knight Rider, has threatened- er... revealed plans to produce a sequel to the allegedly popular Knight Rider original. It doesn't bear thinking about, does it?

## THE BEST GAME YOU'VE NEVER PLAYED

# #4 EARTH 2150

I picked up the first in the series in a bargain bin for \$15, and it was a small sum very well spent. Not only are the graphics quite slick (even by today's standards), but the enemy AI can be \*very\* tough to beat. Add to this customisable weapon/chassis combinations, R&D for new units and weapons, units that can travel via land, sea or air (or even in tunnels underground), three factions with separate missions for each, plus a top-notch level editor

and you have one great RTS on your hands. I understand the title is big in Europe, perhaps it just didn't receive enough exposure in foreign markets? Definitely worth a look if you're a fan of the genre.

Colin Tucker

Send your 100 word submissions to [letters@pcpowerplay.com.au](mailto:letters@pcpowerplay.com.au) with the game title in the subject line.







# HOTWARE

All the bits that we cram in at the last moment with Anthony Fordham

## CANON EOS300D DIGITAL SLR

**Price:** \$1999 **Distributor:** Canon **Contact:** [www.canon.com.au](http://www.canon.com.au)

Normal digital cameras are great sure, for happy snaps and amateur pornography, but their tiny lenses and limited aperture ranges mean their picture quality pales in comparison to pics from a quality 35mm Single Lens Reflex (SLR) camera. Digital SLRs have been around for a few years now, but until this year most rang up at anywhere from \$10,000 to \$50,000. Plus they were huge hulking devices more suited to sports photographers who were used to having gigantic, telescope-sized lenses attached to their camera bodies. Then Pentax released its \*ist D digital SLR for \$3000 and the revolution was on.

Now Canon joins the fray with a \$2000 (some would call it sub-\$2000, but at \$1999 let's not kid ourselves) digital SLR in the shape of the EOS300D. With a 6.3 megapixel CMOS sensor, 7-point wide area auto focus, a whole host of other technical bibs and bobs which you will probably never understand and a titanium-coloured body, it's sleek, stylish and almost affordable.



## APPLE IPOD MINI

**Price:** \$500 (TBC) **Distributor:** Apple  
**Contact:** [www.apple.com.au](http://www.apple.com.au)

Remember what I was saying last month about the Apple iPod being just too damn bulky? Well, Apple seems to have heard. Available in April, the iPod Mini will take the style and functionality of the iPod and moosh it down into a case only 2/3 the size of the 5GB model.

Using a 4GB drive, the Mini also has a couple of other new features. The

control buttons are now actually underneath the jog wheel, representing an even more efficient use of an already minimalist control system. The screen is also recessed into the unit more to prevent scratching, but still displays the same amount of information as on the 'big' iPod.

Finally, and perhaps most importantly, the iPod Mini will be supplied in a range of colours. That's right, no more boring white for us! Such fabulous colours as pink and yellow and blue will make that old song about singing rainbows even more apt! Expect quirky PR 'gags' about "buying one for every outfit!" Haha! Those kidders! Meanwhile, Microsoft heavies in dark suits with thin watches continue to warn people that choosing iPod "restricts your choice" because Apple's little MP3-that-can doesn't support Microsoft's filthy WMA file format. Like, boo hoo. So we can only choose from one high quality MP3 player instead of 5,000 crap ones? Keep trying Microsoft.



## 8 IN 1 CARD READER

**Price:** \$40 **Distributor:** PC Case Gear  
**Contact:** [www.pccasegear.com.au](http://www.pccasegear.com.au)

Okay so it's hardly the most glamorous item in this month's round-up but it's quite possibly the most useful. If you've bought more than one MP3 player / camera / strange techno gadget you saw in Hotware, then you've no doubt got at least three different flash memory card formats lying around. Maybe you even have an IBM microdrive.

Whatever, now you can plug them all into this exhaustively comprehensive tribute to compatibility, the 8-in-1 card reader. Many 6-in-1 readers are available, but only this one goes the full distance to support Microdrive and Compact Flash II as well as CF1, SD, SmartMedia, Memory Stick, Memory Stick Pro and MultiMediaCard.

The device itself is both USB and USB2.0 compatible so you can plug it into almost any machine built some time since the Coalition came to power. It also works on Macintoshes too, you know, if anyone cares.





## PARTY BOT

**Price:** \$100 **Distributor:** Firebox **Contact:** [www.firebox.com](http://www.firebox.com)

**T**estament to continuing plummeting costs of junky electronics, the Party Bot is available now to spice up your next drunken gathering or CWA meeting. Essentially, it's a horrible plastic gimmick that has blinking eyes, wiggling ears, and a slot on the back perfectly shaped to carry beer or alcohol-free beer-substitute (such as Coke). There are also a couple of crappy plastic brushes on the front that twitch fitfully as you guide this thing around your lounge-room via an infrared remote control, "sweeping up" after a heavy night abusing

prescription drugs. The trick with Party Bot is to get your mates sozzled and then fool them into thinking the little beggar is acting completely autonomously. The eyes don't actually see, but they LOOK like they can see. Convince people that Party Bot is filming their every drunken pash and barely co-ordinated grope and when they wake up in the morning they'll remember nothing except that they did something extremely stupid and embarrassing, and a little blue robot somehow GOT IT ALL ON TAPE. Now that's technology.



## SOUND BUG

**Price:** \$89.95 **Distributor:** LatestBuy **Contact:** [www.latestbuy.com.au](http://www.latestbuy.com.au)

**H**onestly I was expecting these things to come along about five years ago. It's a speaker that you just slap on a window and it uses the whole pane of glass as a sounding board to generate fairly clear noise. So that's its trick, is there anything else interesting about this thing? Oh but yes. For a start, Sound Bug works its magic by using a RARE MATERIAL called Terfenol-D, which was developed by the US MILITARY to spy on you on the toilet

and also for underwater sonar applications.

Like a normal speaker, when 'stimulated' (their word, not mine) by a magnetic field, the Terfenol-D vibrates. It seems this vibration is strong enough to resonate any nearby material, provided it's both flat and 'glossy'. PCPP is looking for willing volunteers to go out and buy this thing, strap it on their forehead, and pump some death metal through it at high volume for, I dunno, eight to twelve hours. Please send colour photographs of the results.



## NAMCO 5 IN 1 ARCADE STICK

**Price:** \$79.95 **Distributor:** LatestBuy **Contact:** [www.latestbuy.com.au](http://www.latestbuy.com.au)

**N**umber three in our series of retro arcade devices that plug straight into your TV, this flashy unit from Namco could very well be the best of the whole bunch. Sure, it only has five games, but when three of those games are Pacman, Galaxian and Dig Dug, the extra two - Rally X and Bosconian - seem like free bonuses.

So we're talking fabulous full-colour graphics, fantastic bloopy-bloop sound and knuckle-splitting input via the authentic bobble-tipped joystick and mashtastic fire button.

They've even designed it to look like one of the old arcade consoles that so many of us 80s kids spent our callow youth - and our callow pocket money - on.

What we're clearly seeing here is a gathering trend in micro-sized arcade classics. Now bring on the 10-in-1 8- and 16-bit machines!

## SAMSUNG SRG149PT BAR FRIDGE

**Price:** \$329 **Distributor:** Samsung **Contact:** [www.samsung.com.au](http://www.samsung.com.au)



**D**o you run your monster rig in a fabulous aluminium case from the likes of Lian Li or CoolerMaster? Have you been searching for the perfect bar fridge to keep your Jolt frosty even as you frag the night away? Does your bar fridge have to match your case?

If the answer to all these questions is at least vaguely affirmative, then Samsung has the bar fridge for you. It's the evocatively-named SRG149PT and it's just jam-packed full of exciting "world class" refrigeration technology.

But in the words of Judith Lucy, who gives a shit? This fridge has a platinum door! Platinum!

Does Samsung even REALISE what it's doing?

Selling this 130 litre fridge for \$330 with a door made of PLATINUM? Why, the amount of platinum in that door must be worth tens of thousands!

What's that? Platinum in this case is just a fancy word for stainless steel? Damn it, I was sure I was onto a good thing there. Now what am I going to do with ten funky bar fridges? I know, I'll run them in parallel as the WORLD'S MOST POWERFUL FRIDGE! Still, at least they match my Lian Li PC6070 case. Shiny is good.



OUT TO PLAY Timothy C. Best



# Word Games

**H**ow many Not-Another-Teen-Movie, arse-slapping, mini-games can you really cram into a game? That's the question that leaps mind when I think about the upcoming Leisure Suit Larry game: Magna Cum Laude. Then we have the upcoming game, Singles, where you match up a guy and a gal and play through their romantic encounters as they share a flat. Considering that social encounters in games are about as well modelled as that Spitfire your baby brother is gluing to his head, you really have to wonder how people think games like this are going to work.

From personal dating experience I've found that when a crucial dialogue jumps you – like if a beautiful lass telling you have a nice smile or if you've just implied that the girl you are flirting with in some way resembles an unflattering creature of some description – if anything comes to mind that might help, it rarely comes in the form of multiple choice answers. It's even more rare for the world to stop to give you time to carefully choose a response.

## Chatty as Larry

In games like the previous Larry games the action has been herded towards what games do well like making you wander around endless levels collecting shaving cream, air-sick bags, grass skirts and dodgy love pills (darn that Faith living up to her name).

Sure, you had some mini-games to break up the collecting and combining but the real focus of the game – the pick-up – was a basic and sketchy business at best. Where were the heart-pumping thrills? Where was the verbal action and adventure? Where was the pick-up game? It seems the answer is that it was waiting for Larry 8.

Apparently, the developers of the new Larry game really wanted to make the dialogue not just funny, but fun to play through. That meant a mini-game, like having a combat, driving or safe cracking mini-game. In Magna Cum Laude you get to steer Larry through conversations ... literally.

If I have my head around this properly it goes like this: as the speaking is happening, you move a little Larry icon through a linear game, dodging negative icons and trying to hit the positive ones. At each natural break in the conversation, your option is

selected by where you steer. Combining an almost racing mini-game to chat up lines brings exciting new meaning to the term "crashing and burning".

According to the developers this system let them fill dead time between mini-games as well as offering up opportunities of laughs when Larry really messes up in his banter.

Goodness knows how all of this will work in Larry, and it's easy to imagine how distracting a mini-game could be especially in something more serious. Missing out on the trick to escaping the Dour Dungeons because you were playing some noun-heavy Super Sprint would suck. On the other hand you could argue that you'd be able to work out the bad-guy's weaknesses much more quickly if they weren't shooting at you the whole time. A simple in-game journal could help with details no end and who hasn't lost track of the forest when they were trying to plant the perfect witty tree?

## Dialogue Dodge 'Ems

Obviously, a real-time speech system will always have to be something more than flashing up limbs of a dialogue tree and having a player grab them on the fly – there just aren't enough kick-arse speed readers – but I don't see what stops people from getting a little more creative.

Maybe you could have something a little more like a 3D car game where you move side to side avoiding verbal traps, driving over yes and no answers, hitting the accelerator for more intense replies, and hamming down sarcasm or veiled-threat side alleys. If you synced everything up you could produce flowing back and forth speech. You could play your character like a hot-head or a Cain from Kung-fu slow-talker. You could use your skill points in "Persuasion" to jump obstacles or as armour. Good responses could give you power-ups for the rest of the conversation. The dialogue tracks could be randomly generated based on your comparative skills, secrecy ratings assigned to certain information, aggression ratings or whatever. The game could be as abstract as you like and if you got it right, you'd play it so that you barely notice it tick along ... it would fit the rhythm and flow of the conversation, kind of like when those rhythm games work when you start



**an insult is like a trebuchet; not wanting to let something slip is like having towers**

getting the hang of them. Did anyone catch Vib Ribbon? Okay, imagine that to the rhythm of words instead of music.

If someone is threatening you, you could navigate between icons like crossed swords for "okay, let's go", peace signs for, "hey, buddy, there's no beef here," feet for "run!" and a winking smiley side-alley for some screwball fast talking.

## Tough Talking

I admit it's a big ask, but I don't think it's much bigger than capturing the feel of a gun fight or controlling the flow of a massive battle using a mouse. Sure it's a little abstract, but words are things, right? They're like troops. A real zinging insult is like a trebuchet, not wanting to let something slip is like having walls and towers.

If the action word games weren't your thing you could always have something a little more thoughtful, like cards you select from +5 Barbs, to +2 Sweet Talk. Maybe as they were talking key words would be highlighted, and related pieces of information would pop up in icon form and you could play them plus a card. As Mike says "I ain't

done nothing" an icon of the clown with six knives in his back appears – 'coz you know the creep iced Bobo – so you click on the icon plus a +3 Rage card and listen as your character goes off on him like Goren being lied to on Criminal Intent.

A system like this has obvious gameplay draws for things like Larry's social life, but it would also be an amazing addition to, say, detective games, not to mention any title that dared to tackle emotional, rather than physical territory.

At very least we could have some simple back-and-forth flow. It's a simple immersion thing more basic than digital rust textures taken from the Titanic, 3D sound so precise you can dodge bullets fired from behind you and having NPC lines so sparkling you need to hire Hollywood voice actors to speak them.

Imagine waking up in a world that sounded and looked just right but was filled with silent people bearing text-bubbles who froze while you chose responses from a numbered list. It would be a creepy Dr. Who world, nothing like the one we live in where speech is fast, loose and dangerous.





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TECH TALK: Stuart Calvin



# Looking Ahead

**I**'m suspicious of most things by nature. I'm suspicious of taxes, spam and free one-way tickets to El Salvador. I'm not suspicious of sound cards and remain only a little suspicious of NVIDIA but I'm very suspicious of AMD and Intel motives.

The CPU manufacturers are very circumspect about what they're doing and where they're taking us. Is there any future model recognition creeping into your subconsciousness? Prescott? Maybe? Toledo? No?! It seems that keeping up with CPU flavours, socket configuration, pin-outs, cache levels and Front Side Bus Speeds is a job for caffeine soaked geeks. I've previously talked about pathways to nowhere, like the 1.4GHz Socket-370 Celeron which ... bzzzt! ... preceded the 1.7GHz Socket-478 Celeron. Oh dear, that was a while ago but with 0.09µ CPU process on the near horizon how many gamers are going to get stuck with an obsolete MoBo and CPU combination? Every few years this is immutable for a lot of us and it's going to happen again in the next 12 months. Initial Intel Prescott processors will come in a 478-pin package but some of them will not be compatible with current Socket-478 motherboards. Go figure.

The start of the new year left the gaming world a little bewildered with two new classes of processors, namely the \$1200 Athlon 64 FX (ClawHammer) and the \$1500 Pentium 4 Extreme Edition. These processors are by all means a cash cow, marketed for gamers and enthusiasts (the "prosumer") but they are priced well above most consumer's comfort level. A \$400 CPU isn't asking too much today of the average gamer, but we've grown far too accustomed to sub-\$250 CPU prices for eXtreme pricing to work – we're just not that dumb when a Pentium 4 2.60C is now under \$250 and an XP 2800+ is around \$200.

The Intel road map is easy enough to follow with Prescott due out soon in a 478-pin flavour, followed by a new LGA-775 form factor. There's also meant to be a Northwood P4 running at 3.40GHz available soon – you hope. Intel is in no hurry to over-achieve, mainly because there's no headroom left in the Northwood core.

Overclocking a 3.x GHz P4 is not effectively useful, sensible or achievable in any satisfactory way. Although the Northwood's smaller transistors are able to switch faster and generate less heat than the previous, hotter-running Willamette-based P4, its time is running out or we'd have seen a 3.4C by now, or indeed, in time for Christmas sales.

While something around the performance mark of an AMD XP 2600+ will last a little longer, gamers should now look ahead to avoid an upgrade from hell. The first half of 2004 is slim pickings from AMD with just the Desktop Athlon 64 and a new Mobile Athlon 64. The second half of this year, however, will see a plethora of new AMD processors: three Server/Workstation CPUs, two Mobile chips and three Desktop humdingers, two of which will be 0.09µ bullet trains. The Duron will remain on a 0.18µ process. The Athlon 64 FX will morph into the 0.09µ process San Diego I talked about some issues ago (and then into the Toledo in late 2005). The Athlon 64 (sans FX) is currently abounding as a 0.13µ Newcastle and will morph into a 0.09µ Winchester later this year and is my pick for a gamer's processor. Our venerable Athlon Barton XP will remain as a 0.13µ process CPU but will be known as the Paris later this year to be followed by the 0.09µ process Palermo in late 2005. It remains to be seen how much AMD can squeeze out of Paris for 12 months. I'm really wondering what AMD will do about bumping up from the Barton 3200+ at 2200MHz. A plan, at least one that makes sense, would be to pump out an XP 3300+ or 3400+ out before Paris. I'd have to say that someone in the 2500+ to 2800+ range might wait for Paris. But, if you have a 266MHz FSB, now's the time to source a AXDA2400DKV3C 2400+ at 2000MHz since the AXDA2600DKV3C 2600+ is as scarce as rocking horse shit, if not impossible to buy in mint condition. If you have a 333MHz FSB now's the time to carefully watch the state of play with the Barton AXDA3000DKV4D 3000+ at 2167MHz – they will run out, eventually. I'm reliably informed that the next two XP



## The CPU manufacturers are very circumspect about what they're doing

processors will be a 2800+ and a 3000+ but with only 256KB of L2 cache or half that of the current Bartons. A Barton 3300+ or 3400+ would make lots of sense not to mention a useful upgrade. But AMD won't want to cannibalise early Paris sales by squeezing out too many high-performance Bartons – hence the anticipated lower 256KB L2 cache.

Later this year we'll see AMD64 puppies at 2400 and 2600MHz. There'll be an FX53, a 3400+ and two 3700+ units with 1MB or 512KB of L2 cache. To confound things, the 1MB 3700+ will be a 754-Pin \_PGA (Socket-A) unit as will the 3400+ but the other 3700+ and the FX53 will be a new 939 pin-out. "What's that?" you say ... 939? Isn't it 940? The FX51 at 2200MHz is a 940-pin \_PGA form factor as is the Opteron (SledgeHammer). The Socket-940 Athlon64 FX requires Registered DDR memory instead of the more common unbuffered DDR that we know and adore. This turned to custard when AMD announced at the September 2003 introduction that the FX would be launched in this new 939-pin socket version in the first half of 2004. The new Socket-939 version allows the use of regular unbuffered memory instead of that more expensive registered stuff required by

processors will be a 2800+ and a 3000+ but with only 256KB of L2 cache or half that of the current Bartons. A Barton 3300+ or 3400+ would make lots of sense not to mention a useful upgrade. But AMD won't want to cannibalise early Paris sales by squeezing out too many high-performance Bartons – hence the anticipated lower 256KB L2 cache.

Know this: the Newcastle, which is the mainstream successor to ClawHammer (the FX), is what all current Athlon 64s are based on right now. The only difference between Newcastle and ClawHammer is that Newcastle has half the L2 cache, totalling 512KB instead of the original 1MB of L2 that AMD launched. Why AMD would introduce the Athlon 64 with 1MB of L2, only to scale it back a couple of months later, is anyone's guess. Perhaps AMD felt that it would be necessary to successfully compete with Prescott or perhaps there were design issues or getting it to market at the right time. Needless to say that slowly but surely all Athlon 64s will eventually be Newcastle derived. When the experts first looked at the Athlon 64 and the Athlon 64 FX they realised that the performance difference between the two was negligible. They all agree, too, that the fate of the Athlon 64 FX was sealed with the 'on-the-QT' release of the Athlon 64 3000+ based on the Newcastle core.





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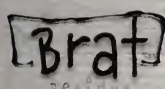
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## THE GUERRILLA GAMER

# G is for Genre

**B**efore I start with my witty dissertation on the game genres we are yet to see, let me first rant briefly about our use of this word 'genre' to describe different games.

See, my understanding of the word 'genre' makes it the word I apply to different kinds of stories within the same medium. So, a western novel is in a different genre to a sci-fi novel. You still read both books the same way, it's just the subject matter that changes.

How then did we end up applying the word 'genre' to gaming in such a way that Warcraft III and Sudden Strike can be said to be in the same genre - that being RTS? While one is a fantasy game and the other a shaky WW2 simulation? It's frankly bizarre.

Of course, if I had a better word for delineating RTS, FPS, RPG and the rest of it, then I'd be shouting it to the four winds and ringing up all the PCPP reviewers on a regular basis in an attempt to get them to use it. But I don't. So I guess we'll just have to stick with 'genre'.

As far as I can tell, the following genres exist in gaming today: Realtime Strategy, Firstperson Shooter, Roleplaying Game, Massively Multiplayer Online Role Playing Game, Flight Simulator, Racing Simulator, Sports Simulator, Management, Turn-based Strategy, Sims Expansion, World War 2 Shooter, Space Shooter, Allegedly Freeform Space Shooter and of course the ever popular Overhyped Pile of Cack By Some Obscure Gaming 'Celebrity'.

But what about all those genres we DON'T see down at our local games emporium? Here are a few I would most dearly like to play:

### Dating Simulator

Actually these exist in copious profusion in Japan, where they are basically dressed up cartoon porn. The concept is pretty simple - you navigate a series of conversation options in an attempt to get a scarily-drawn girl to take her clothes off in front of you.

A more westernised version of these could be designed to appeal to 'players' and speed-dating aficionados



alike. A veritable gauntlet of potential partners would have to be challenged - and the twist is that the more you get to know your 'date' the harder they are to get along with. There could also be some detailed STD epidemic modelling just to make the whole experience that much more fraught.

### Family Gathering Simulator

Think about it, you could have a bunch of these for all the various different holidays - Christmas, New Years, Easter... uh what else do we have in this country? Bugger it, set them all in the US and you can have Thanksgiving, Halloween and the Fourth of July as well.

The player's task would be to survive a gathering of their extended family, and memorise a whole bunch of birthdays, anniversaries and other arbitrary dates that will make their virtual relatives really upset if they forget.

I predict a media controversy over the upcoming Family Turkey Shoot, in which the gamer is able to go and bust his dad's .303 rifle out of the locker in the pantry and mow down grandma over the brussel sprouts, because of what she said about the player putting on weight. "But it's

realistic!" the developers will protest as they're hauled away to a 're-education' camp - the kind that helped Lawrence Holland get over Secret Weapons of the Luftwaffe and produce Secret Weapons over Normandy.

### Tax Avoidance Strategy

The TAS genre could encompass all kinds of games, from fairly dry economic management sims that encourage you to be really devious with your accounting, to Sims-like shopping simulators in which you need to buy stuff that depreciates really quickly. Or indeed, the TAS would even allow for firstperson "The Fugitive" style manhunt gaming, where you as a tax collector hunt down and kill the ultra-rich as they flee through the swamps in an attempt to avoid another audit.

### Australian Political Simulator

This would be a great genre - games like Labor Caucus Deathmatch: The Rise of the Middle Right would clog shelves along with Backbench Tycoon 2004. Great, ornate Byzantine games of intrigue and ultra-detailed character modelling (although you'd only need the one character, just change his hair slightly to represent different National

Party MPs) could take the player hours and hours of high-impact NPC interactions in order to shift the balance of power 0.24 percent to the left (or, as is more likely these days, to the right). As for me, I'd pay good money for Bareknuckle: Retaining the Labor Leadership.

### Censorship RPG

Or how about this for a concept? A series of RPGs in which you play film office censors in various different countries! That's right, you get to sit and watch presentations by game publishers and then decide whether or not their games are too 'killographic' to be released in the country you represent. As the Australian censor, gnash your teeth as you watch those libertine New Zealanders casually screw-and-kill prostitutes in the unbastardised version of GTA3! Destroy someone's ten-year dream to publish Australia's first sheep castrating simulator with a simple flick of your pen! Ban the games of Roberta Williams, in accordance with the Geneva Convention's ruling on cruel and unusual punishment! Give Daikatana a G rating, just to mess with people's minds!

### Gaming Journalism Management

This would be kind of a meta-genre. A series of games in which the player would have to successfully critique the remainder of the industry in such a way as to not piss off distributors and likewise not piss off readers of various magazines. Titles like Official Console Mag 2004: The Quest For Real Independence would rub shoulders with Sim PC Magazine, a game in which a detailed business management sim would frequently and randomly switch to a Double-Dragon style street fighting arcade bash. After all, that's what our lives are really like.

*The Guerrilla Gamer is a veteran PC games journalist who is rapidly running out of ideas. He used to have a website, until his host made him take it down, on the grounds that if he was going to charge money for hardcore llama porn, they thought he should at least be "classy about it".*



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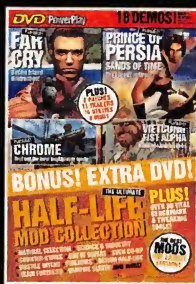
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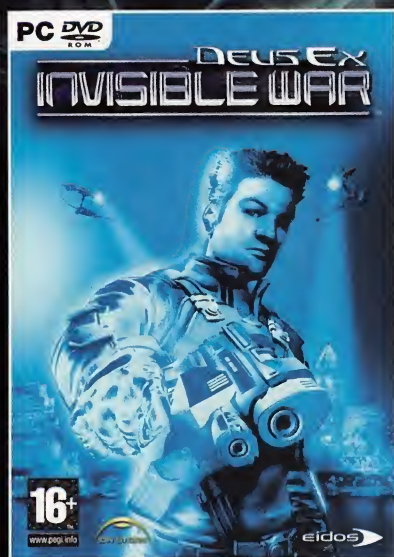
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# GAMES IN PREVIEW

I have fond memories of the original Leisure Suit Larry in the Land of Lounge Lizards. A friend of a friend had a copy that was passed round school with the kind of excitement typically generated by the combination of teenage boys, casually pirated software and a game allegedly for "adults". For someone whose prior experience with PC games was limited to fantasy themed text and graphic adventures and distinctly sub-Mario platformers, Larry was quite something else. It was, if you like, edgy.

But then I grew older. And Larry grew older. I matured into my late teens and early twenties and discovered new games (Day of the Tentacle, Ultima Underworld, Doom) and new genres (RPGs, FPSs, bloody Immersive Reality Simulations), while Larry kept growing older still.

Eventually, around the time I was playing Civ II, Descent 2 and Quake, Larry died. He'd grown so old, most PC gamers - those weaned on Doom - had no idea who he was. The rest of us had stopped visiting him in the home. His smutty jokes and lewd innuendo wasn't funny any more; it was kind of sad. And the way he still had an eye for the ladies wasn't an inspiration; it was merely undignified. Larry died a bit of an embarrassment, really.

Fast forward to today and I can understand why Sierra has decided to resurrect the corpse. Larry is still recalled with fondness - nostalgia is good that way. Also, I think the games industry has lost its sense of humour to an extent. And if Larry can raise a chuckle from our cynical chests, then I'm glad he's back.

But I do have serious doubts about Magna Cum Laude. (I really hope there isn't a girl called Magna, for a start.) Why is the main character not Larry, but his nephew? Why is it set in his college years? Why are there wacky mini-games instead of punning dialogue?

Personally I'd prefer a darker, bleaker take on the Larry thang. Make him a decade older where he's really gone to seed and fill the game with genuine sleaze, depravity and matte black humour. I want a character that players actually despise yet - deep, deep down - see something of themselves within.

Of course, I'm sure it'll sell all of 3 copies worldwide, but I'm not convinced this new version will do much better.

David Wildgoose,  
Editor



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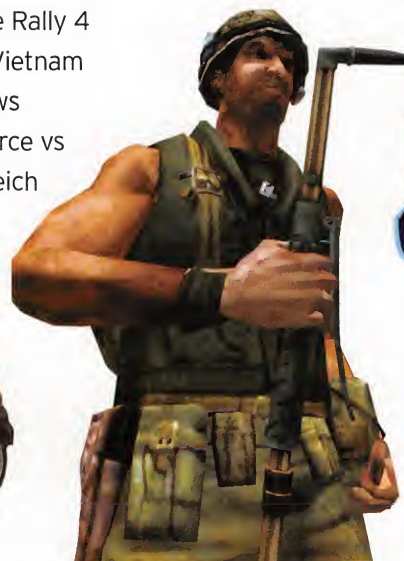
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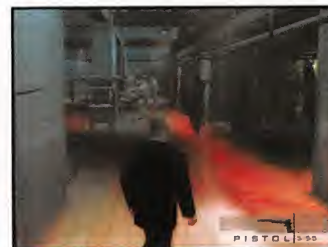
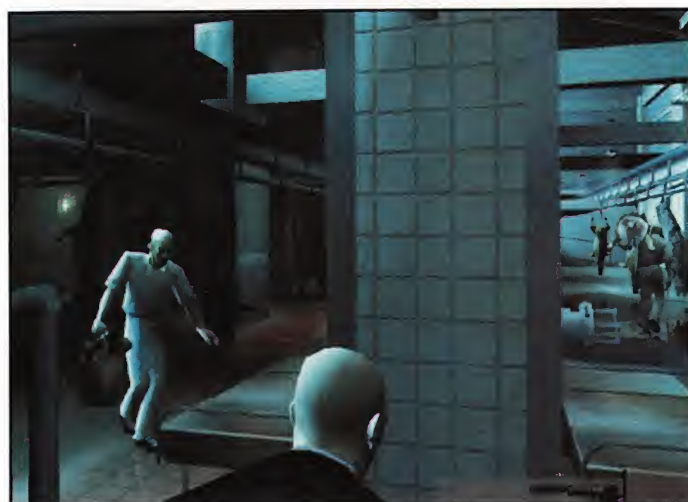






# Hitman: Contracts

47 is back, with 47 new weapons  
and 47 new ways to die



If you've bought an Eidos game recently, you may have noticed that the spot for the fourth CD in the packet has been taken up by a paper disc advertising the imminent release of Hitman: Contracts.

The third in a proud series, Contracts will continue to follow the adventures of the genetically engineered killer known only as 47. In the first game, 47 happily ran around town doing the will of his evil overlords, killing and maiming left right and centre. In Hitman 2, 47 rather unexpectedly became a monk and tried to give up the killing life for gardening. Unfortunately, the same evil overlords had different ideas and blackmailed him back into the aforementioned killing life.

If we've learned anything about 47 over the past two games, it's that he's no mindless automaton. He's a genetic freak, sure, but he has depth and feelings. Complex motive. Etc. And it's this aspect of his character that IO Interactive will be exploring in the new game.

The developer says that many of the missions will in fact involve 47 remembering previous jobs, and examining his feelings of guilt and remorse over the killings. The character will gradually come to a deeper understanding of himself, and it will be up to the player to help 47 decide how to react to his

developing sense of conscience.

The two previous Hitmans (or should that be Hitmen?) suffered from different but central criticisms. Hitman 1 was more a puzzle game than a shooter. Hitman 2 focused too heavily on military environments and encounters, which according to IO Interactive, pissed off the fans.

"We found that the missions where you are allowed to walk among a lot of innocent people are the most fun," says IO game director Jacob Anderson. "Of course, that leads to a lot of innocents getting hurt if the player messes up and has to shoot his way out."

IO promises that Contracts will focus on "fewer but bigger" missions, each with multiple targets and multiple ways of completing tasks and goals. So we can expect the puzzle elements to remain, while a good strong focus on shootin' and sneakin' and silent killin' will keep us coming back for more.

Naturally, any game released this year better have a whole bunch of graphical bells and whistles up its asset directory, or it's bargain bin land for sure. IO is completely overhauling the already very competent Hitman engine for the new game.

"We have upgraded the engine to include real-time mirrors, post filters such as depth blue, blooming, colour correction and a lot of other stuff, and an improved physics engine," says Anderson.

There will also be the requisite renderer upgrade, enabling high polygon models and really realistic chunks of flesh and gobs of gore to be flung about and drip off the walls etc.

A dark tale of moral conflict, peppered with nail-biting stealth, the occasional gunfight and cool bald-headed attitude? Here's hoping that with too very good games under its belt, IO Interactive can now produce something spectacular.

**And you thought it was just a style thing. But did you ever stop to realise that by breeding him bald, 47's creators massively enhanced his ability to disguise himself? By the application of stylish wigs, 47 can become almost any kind of character, from a grizzled barkeep to a slinky topless dancer. Yes, really. What's that? We lost the topless dancer screenshot? Isn't that always the way...**

**Anthony Fordham**

Developer: **IO Interactive** Publisher: **Eidos** Distributor: **Atari Due** April 2004



# Silent Storm

The spirit of XCOM lives on in a parallel universe...



It's kinda funny, really: by the time you read this "preview" of Silent Storm, the game itself will have been out in the US for a little over two months. There are dozens of reviews already floating around out there, and most of them are saying Nival Interactive's work is the best squad-tactics game released since Jagged Alliance 2. If you wanted to, you could go and order it online right now and have it shipped over here in less than a week. So why, one must wonder, are we even bothering?

Well, that's the tricky thing: even though SS has been already been released in the US and Europe, nobody's bothered to pick up the rights to distribute it locally. There are rumours that Red Ant is toying with the idea, but nothing's been confirmed yet and probably won't be for some time.

What are we supposed to do? Here's this bloody good game that everyone else in the world is enjoying and we can't review it yet because of some bollocks distribution technicality.

There's only one thing for it: a "preview" whereby we just summarise all the nice things other people have said about the game in anticipation of actually getting our hands on it ourselves.

So, okay, here are the basics: SS is a turn-based strategy game focused on squad tactics. It's set in an alternate universe version of World War II, wherein the Nazis have overrun England and have begun developing giant walking tanks instead of V2 rockets.

Like Jagged Alliance 2 and X-COM, it features lightweight role-playing elements that are primarily focused on the creation and maintenance of a protagonist that leads your teams throughout the entirety of a given campaign. Word on the street (read: internet) has it that this aspect of SS works



extraordinarily well, as the fun of leveling up yourself and other squad-members adds an element of addictive longevity that might not have been present otherwise. Indeed, a few pundits are even comparing the skill system with that of Diablo II... and god knows Diablo + Giant Nazi Mechs = a winning combination in our books.

In addition to these finely honed gameplay mechanics, SS is also home to some pretty impressive technology. From what we've seen, the audio/visual presentation puts other turn-based strategy games to absolute shame and the engine even features destructible environments, which really opens up the door for some creative, on-the-fly strategic thinking.

Of course, all this comes at a price and it should be noted that some pretty severe performance lag has already been reported by a large number of players - although there's hope that a patch will resolve these issues relatively soon.

How soon, you ask? Well, hopefully soon enough for everything to be fixed by the time the game hits Australian shores. We're not entirely sure when - or even if - that'll be, but you can rest assured that PCPP will be on the case the moment it does. Remember to look out for our full review in the next few months.

Daniel Staines



interestingly, SS sports a pretty fantastic physics engine, with soldiers and scenery reacting to gunshots and explosions in a way that can only be described as "fully awesome". For example, shoot a Gerry in the guts with a silenced pistol and he might flop to the floor in typical rag-doll fashion. Shoot said Nazi in the head with a high-powered sniper rifle, though, and it would not be entirely unusual to see him fly into the air and smash through a nearby window. And if you think that's cool, just wait till you see what a grenade does!

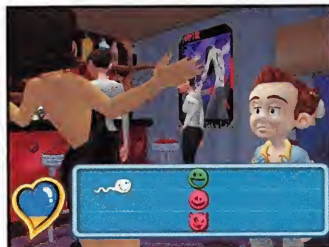
Developer: **Nival Interactive** Publisher: **JoWood** Distributor: **TBC** Due: **2004**





# Leisure Suit Larry: Magna Cum Laude

See? The title has the word 'cum' in it! Bwahahaha!



realised college campus" according to Sierra, and will spend most of his time running around in a thirdperson 3D environment, playing dozens of different minigames, streaking, and trying to chat up chicks.

Sierra has developed what they think is an innovative conversation system, where instead of choosing options from a branching tree, the player 'steers' an icon along a conversational path, and clever steering will get the coeds variously drunk and out of their unrealistically tiny miniskirts.

Don't expect hardcore sex action like Meg Ryan in *In the Cut*, though. Larry has traditionally been almost bizarrely prudish, despite making it perfectly clear that the main character has only one thing on his mind. When it comes to the crunch though, you'll be lucky to get anything more than nipples, and after that Janet Jackson thing, well even the nipples might get the shaft. Er... so to speak.

The game is being developed simultaneously on all platforms, so head over to the Leisure Suit Larry forums to see exactly how disgusted all the fans really are. On the other hand, 'selling out' to console will probably result in a fun 'romp' of a game that should be good fun with a few beers and a few mates. Or after a shot of nitrous.

Magna Cum Laude (see, the title has the word... oh forget it) looks set to join the reborn ranks of Sam & Max 2 and lord knows what else Sierra or LucasArts will dredge up over the next three or four years as a 3D 'modernised' tribute to the great adventure games of yore. Expect a full review in this fine magazine sometime this year. But uh... don't necessarily expect a good score.

Anthony Fordham



My first encounter with a Larry game was on a school computer. I was in year 8 and a bunch of sniggering, spotty year 10 boys were clustered around the screen trying to defeat the age lock system so they could take a peek at twenty four pixels arranged in a vaguely breast-like shape. The Larry games used quizzes to 'prove' the player was old enough for the 'mature content'. Given today's ready availability of the great World Book Encyclopaedia that is a home internet connection, it's unlikely that quizzes on 70s trivia would keep the littlies out for long anymore.



What would gaming history be like without the Leisure Suit Larry games? It'd be like the history of Hollywood without the Meatballs films (oh Corey, where are you now?) or the history of Australian prime time TV without Chances.

We're talking porn so soft, you could poot it out of a refrigerator nozzle and sell it as a 30 cent cone. Trying to get off on a Leisure Suit Larry game is only slightly less satisfying than trying to get off on the 'raunchy' frocks worn by the Australia's Funniest Home Videos girls.

Despite this, there have been many, many Larry games and they have sort of by default become a 'proud' PC gaming tradition, loosely grouped with such true classics as Hero Quest, Police Quest and Space Quest. In fact, Larry would probably have done just as well had it maintained the theme and called itself Panty Quest.

Grizzled grunting adventure game veterans and youngsters who think 'titillation' is synonymous with 'eroticism' will therefore be glad to know that Larry will indeed soon be back, and like everything else these days, he'll be in 3D.

A quick caveat - Magna Cum Laude (see, the title has the word 'cum' in it! Teehee!) doesn't actually star Larry. Instead it stars Larry's younger nephew. Fortunately, he's also called Larry to prevent confusion.

Larry is a student on a "fully

Developer: Sierra Publisher: Vivendi Distributor: Vivendi Due: Late 2004



# Colin McRae Rally 4

Oh it's you again. Come on in, you know where everything is...



In a market dominated by unfamiliar genre-busting supergames (ahem) it's good to occasionally be able to anticipate the return of a familiar face. Colin McRae Rally has been around since 3D cards were very young, and his inevitable sequels were met with varying degrees of success on varying platforms.

CMR has always differentiated itself from the rallying pack by dint of being a hardcore rallying simulation, as opposed to a dullard's bushbashing game. Sure, we've had our share of fun with the likes of RalliSport Challenge, but for niggling tiny details and vaguely officious Scottish co-driver accents, you just can't go past CMR.

Am I waffling? Am I filling column inches just trying to avoid having to tell you what's new for CMR04, already released on the consoles? How could you think such a thing of me? I've reviewed every CMR game since CMR02 for this fine magazine, and if you...

Okay you got me. At first glance, CMR04 is clearly not going to represent much of a paradigm shift in rally simulations. The interface is slightly different, again. The car models will be slightly more detailed. The requisite levels of environmental effects such as dust, snow, rain, groovy lens-flare and bloom will all be there. Rally stages from several different countries will also be included. So what's the big deal?

Think of CMR04 as a face lift, a really professional one that actually makes the ageing porn starlet hot again. The game really does look significantly better than all the other rally sims out there, even Dice's Xbox-tastic RalliSport Challenge.

CMR04 features the clean, ultra-detailed lines of the true simulator. Everything is in your

face, larger than life, crisper than crisp. Rather than the traditional "tunnel of trees", CMR04 now finally has wide sweeping vistas in locations such as Sweden and Greece. It has intricate rock-walled laneways in Japan. Hedge, sties and country churchyards in Britain and slightly doubtful eucalypts and xantharlas in Australia.

Codemasters - which has been developing CMR games since the world was very young - promises all these locations and more, including arena-based super special stages and a more than a few retro courses.

You'll need the retro courses to drive your retro cars on. CMR04 will feature 2WD, 4WD, Group B (you know, those funny boxy looking cars) and a whole bunch of 'bonus' cars which will include the aforementioned retro vehicles from rallying days of yore.

Expect all the usual rallying tropes of single stage, rally, championship, quick race and time trial. Beat a ghost car. Beat your own best times. Etc. No return of the funky rally school from the original game which continues to be both disappointing and baffling but oh well.

Having played the game, I can say CMR04 feels considerably more 'real' than other rally sims. Cars have convincing weight, and there's real difference between Colin's Citroën Xsara and ex-Colin's Subaru Impreza. What's more, there's now detailed damage modelling, making the most of the high-polygon car models. Crash-tastic!

More of the same with better graphics? A new benchmark in rally gaming? We'll have to wait and see... or go out now and buy the damn thing for console.

Anthony Fordham



As the name suggests, the Colin McRae Rally franchise follows the rallying adventures of that Scottish titan of the sport. It's been interesting to watch the rise and fall of various automotive marques over the series' history. First, there was the redoubtable Subaru Impreza WRC. Then, it got the shaft for the mighty Ford Focus. These days of course, it's all about the Citroën Xsara, which suits me because I've always enjoyed the perversity of driving a French 'performance' vehicle.

Developer: **Codemasters** Publisher: **Codemasters** Distributor: **Atari** Due: **TBC**





# Battlefield Vietnam

Napalm! Heroin! Secret bombings of neighbouring countries! Yay!



Like Rising Sun's popularity in Japan, expect BFV to find favour in the thousands of gaming cafes throughout Thailand and Vietnam. If you think about it, it's actually less perverse than Japanese teens shooting their own grandfathers - after all, Vietnam won the war. Or at least, part of Vietnam won it. Just like our own delight in playing 'Nazi' commandos in multiplayer RTCW (even though we're not allowed to wear Swastikas on our uniforms), expect Vietnamese teens to love taking the controls of the fighter jets that bombed most of their country back into the stone age.



From the brave boys at Digital Illusions comes the next in their series of Battlefield games, a triumph of multiplayer and team-based mayhem over the drudgery of a workaday FPS.

Battlefield: 1942 quite simply took the world by storm, crushing Unreal Tournament 2003's chances of becoming the Next Big Thing in online shootin', at least in this country. What's more, BF:1942 showed the world there was more to teamplayer gaming than Counter-Strike, and did it so well that it was PCPP's Game of the Year for 2002.

Since World War 2 has been done completely to death it was therefore logical that Digital Illusions focus its sights on the next conflict to be done to death - Vietnam. The likes of Platoon, Vietcong and the game-about-Vietnam-called-simply-"Vietnam" haven't quite milked this nasty, shameful war dry yet, so it's good to see another entrant.

According to Digital Illusion's Armando Marini, "Every weapon and every vehicle in the game is new. Everything the player will experience is new."

And that includes the 3D engine. To best represent the jungle warfare that defined the US's wars in Southeast Asia, DI's lead programmer came up with a way to generate detailed vegetation at a low 'cost' to the renderer.

"If I could put a finger on any one single thing that separates BFV from BF1942, it's the vegetation. It's just so cool to run through thick patches of jungle, or to fly overhead in a helicopter and scan the forest for enemies," says Marini.

DI continues to assert that the Battlefield franchise's core aspect is its multiplayer. "Most games place the human player in a world populated by AI and the

multiplayer components need to make concessions for this.

"With Battlefield, we design the game in the opposite way. The multiplayer component comes first and the singleplayer is adapted to it. It's a more challenging approach to take, but well worth it considering the quality of the final experience for the player," says Marini.

Of course, that said, in Battlefield Vietnam you won't be getting a bot-less multiplayer-only game that immediately excludes anyone not running a 1.5 megabit broadband connection. Considerable attention is being paid to the AI.

"We initially saw behaviours that allowed the player to easily differentiate between the bots and human players. We wanted the players to be indistinguishable from the bots, and I fell we've come a long way in achieving that. They are far more lifelike than they were," says Marini.

This despite the fact that the game is much more difficult to program for AI, given the open and organic nature of the levels. Negotiating the trenches and burned-out French patisseries of wartorn Europe is one thing, but negotiating the lush forests and burned-out French patisseries of post-colonial Vietnam is quite another.

And in any case, isn't about time that the Vietnam war became 'fun'? People have been taking America's Least Favourite War far too seriously for far too long now. It's been thirty years! Here's to less Full Metal Jacket and Tigerland, and to more Governor Arnold Schwarzenegger's Predator!

Anthony Fordham

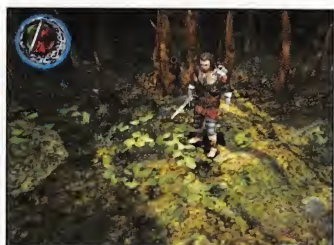
Developer: Digital Illusions Publisher: EA Distributor: EA Due: March



## Song of the Bard

**Developer:** inXile  
**Due:** Q4 2004

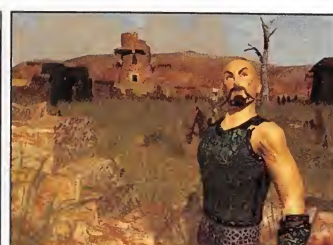
**T**his Bard's Tale remake helmed by former Interplay head honcho, Brian Fargo, has undergone a name change while being picked up by Acclaim for publication and distribution.



## Everquest 2

**Developer:** Sony Online  
**Due:** Q2 2004

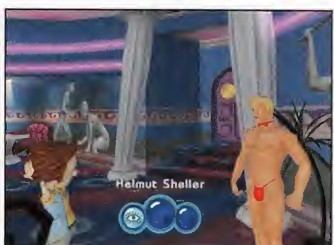
**T**he eagerly awaited MMO has slipped further into 2004, so here's a few new - and, it must be said, horribly over-bumpmapped - screenshots to "enjoy". Perhaps the EQ team should hire new artists?



## Leisure Suit Larry: Magna Cum Laude

**Developer:** Sierra  
**Due:** Q4 2004

**O**ur originally promised cover feature for this issue fell through at the last minute. A shame, as we were quite keen to ask Sierra why on earth we should care about Larry's teenage nephew?



## Mythica

**Developer:** Microsoft  
**Due:** Q4 2004

**D**espite Mythic's protestations, development on Microsoft's newest MMO continues apace, as evidenced by these new screenshots. Is there room in the market for all these things though?



## Flat-Out

**Developer:** Bugbear  
**Due:** Q3 2004

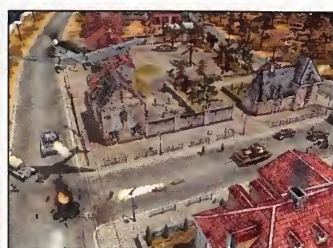
**K**er-racy racing promising much mayhem courtesy of a physics system of impressive fidelity. We like the long jump mini-game where success is judged by how far the driver is hurled from a crashed car.



## Codename Panzers

**Developer:** CDV  
**Due:** Q2 2004

**A** 3D RTS set in World War 2 with an emphasis on tanks. Hmm. We're not quite sure how CDV plans to distinguish this from the rest of the pack. "Infantry using field telephones"? Right.



## Political Machine

**Developer:** Stardock  
**Due:** May

**F**rom Galactic Civilization developer Stardock comes this novel political sim depicting the election year race to the White House. Choose your candidate and run against the computer or friends on the Internet.



## Driv3r

**Developer:** Reflections  
**Due:** June

**T**he Ridley Scott-backed, "GTA killer" is looking very nice indeed. Three cities await your criminal intentions - Miami, Istanbul and Nice. How will Rockstar choose to up the ante in response?





## The Sims 2

**Developer:** Maxis

**Due:** Q2 2004

If Grand Theft Auto promotes violence and racism, then surely The Sims does the same for such deviant behaviour as homosexuality. Isn't it about time the Fundamentalist Right did something about this?



## Silent Hunter 3

**Developer:** Ubisoft

**Due:** Q4 2004

Just when you thought sub sims weren't sexy any more. Now boasting a "compelling ocean environment", the next in the acclaimed series features cooperative and competitive multiplayer modes.



## Supreme Ruler

**Developer:** Battlegoat Studios

**Due:** TBC

Political sims are new hot genre, apparently. The "hilariously" named developer is promising the next generation of strategy game, a game of political and military leadership. We're intrigued.



## Far Cry

**Developer:** Crytek

**Due:** March

Another month, another delicious batch of Far Cry screens to salivate over. At least, that's what Bennett does when we're looking. You don't wanna know what he does when we're not...



## Full Spectrum Warrior

**Developer:** Pandemic

**Due:** Q2 2004

Vital military training tool or uber-realistic wargaming sim? Or both? Battlezone developer Pandemic tries its hand at this tactical shooter thing and first impressions are highly promising.

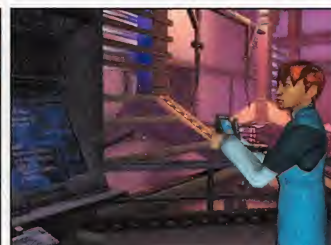


## Sabotain

**Developer:** Akella

**Due:** Q2 2004

System Shock wannabe that's been in development for years now. While the premise and game systems display potential, you can't help but notice it looks about four years out of date.



## Mini One Racing

**Developer:** FroGames

**Due:** Q1 2004

Dizzy, joyous take on the Micro Machines formula from start-up French studio, FroGames. (We think there's a pun involving frogs there.) Four player racing and deathmatching featured.



## Pro Rugby Manager

**Developer:** Digital Jesters

**Due:** March

Stat-heavy management sim but with the option to watch each game in real-time 3D. Match tactics, player training and fretting over financial matters will occupy most of your time in this necessarily niche title.









# FREEDOM FORCE VS THE THIRD REICH

Daniel Wilks and Jonathan Chey don the tights of liberty



Many moons ago when the Earth was young and I first started working for PCPP, the powers that be at the magazine realised I was something of a comic book nerd so charged me with the task of interviewing Irrational Games about its upcoming superhero title, *Freedom Force*, a game which promised to bring out the best of what the silver age of comics had to offer and combine it with compelling small unit tactics and roleplaying elements. OK, saying that this all happened when the Earth was young may be a bit of an exaggeration and the only difference between then and now was that I was a lot more hirsute, but the fact remains that Irrational managed to come through on nearly all aspects of *Freedom Force*, delivering a brilliantly polished and immensely playable game and a perennial favourite when it comes time to write up the newest Top 100 list. It's no secret that I love *Freedom Force* and rank it up there as one of the greatest games of all time, so I was more than happy to jump at the chance to talk to Jonathan Chey from Irrational Games about their recently announced sequel, *Freedom Force vs. The Third Reich*.

When PCPP originally spoke to Irrational all those years ago (OK, so it was about two years but I'm allowed to take a bit of poetic license) they told us that the plan for the series was to have a new game out in a year and that the setting would be moved forward to the 70s and into the bronze age of comics, giving leeway for a grittier story and more frenetic action. When we first heard that the plot of the new game would revolve around the characters traveling back in time to fight the Nazi menace, we were a little stumped – how could the series move into the bronze age if the original characters

remain, travel back in time and fight history's greatest monster? Luckily Chey was ready to set everything straight.

"We still intend to move the franchise forward into the 70s," Chey begins, speaking to us from his top secret hideout in Canberra. "However, when the time came to decide what to do with this sequel we just couldn't bear to leave the current setting behind. Basically, there's still a lot of goodness to be mined out of the Silver Age. And – Ken and Robb [from Irrational's Boston studio]



**when time came to do the sequel, we just couldn't bear to leave the setting behind**

really wanted to introduce some Golden Age characters into the game, which basically means time travel... and, well, it all sort of comes from there. However, you can still expect to see the franchise moving forward into a later genre in games yet to come."

## Excelsior!

Along with the new silver/golden age setting, Irrational will naturally be introducing a number of new characters. At this stage of development the developer isn't too enthusiastic about releasing too many spoilers, but Chey was more than happy to give us a little teaser about some of the new heroes and villains.

"We've got some Golden Age characters and some new Silver Age heroes as well as the usual raft of villains and minions," he says, cackling. "One of the heroes meets his idol from the Second World War. There's a dark hero who has returned from the grave to extract vengeance... A genie that flies around on a magic carpet... and so on! You can expect to see a return of some villains from the previous title, but with a few changes since you

last saw them. And then there are the Nazi villains like Fortissimo – master of music... and destruction!"

Reading the last sentence you can almost see the manic and slightly creepy visage of the man himself Stan Lee pitching the idea to his publisher in the early days of comics.

As good as the characters may be, one of the true joys of the original game was the ability to create your own hero for both the single and multiplayer game. With fingers firmly crossed we ask Chey if this feature would be making a more than welcome return to the upcoming sequel.

"Of course," he states, a response as emphatically direct as a 'POW' sound bubble. "There will be many new powers, attributes, defences and so on. *Freedom Force* is all about giving players choices and we're always going to be looking for more ways to enable that. For example, we've got this cool new possession power that lets you take over enemy characters and directly control them! Or there's the decoy power that creates a duplicate character to fool enemies into attacking a dummy! Or the power that animates dead enemies into

Developer: Irrational Games Publisher: Irrational Distributor: TBC Due: Late 2004





## capable of rendering super-powers in ways never before imagined by mortal man

zombies under your control...and so on and on and on."

Aside from being able to make a



mind-controlling zombie dummy, Chey assured us that all of the original powers would be returning as well, giving players ample scope to make their idea icon of goodness, truth and warm fuzzies.

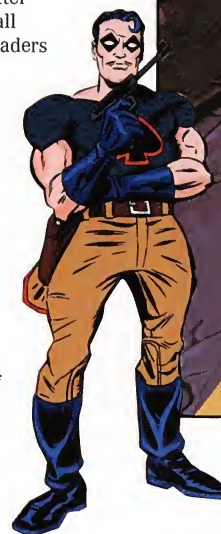
Along with the new characters and powers, Freedom Force vs. The Third Reich will feature an all new graphics engine, capable of rendering super-powers in ways never before imagined by mortal man. With typical candor, Chey sheds some light on what's happening 'under the

hood' of the sequel:

"We've entered into an agreement with NDL to use their Gamebryo engine which is the replacement for the old NetImmerse technology that we used the first time around. We're in the process of integrating that technology into the game at the moment so all the screenshots that you will see for now are using the old Freedom Force renderer. Once we have Gamebryo up and running we'll be adding new lighting and shaders as well as upping the texture resolution, poly counts and so on. We'll be using that technology to add new dynamic lighting systems to the game, glow effects, better particle systems, and all kinds of other pixel-shaders and state of the art rendering effects."

Essentially this means that beating up bad-guys will look better than ever before. Dynamic lighting and particle effects should make for truly spectacular battles with brilliant flashes of power illuminating the darkness, clouds of dust and smoke kicked up by inhumanly strong combatants and explosions. Wonderful big explosions.

Finally the game should (if all goes to plan) feature a beefed up multiplayer element, which Chey describes as having, "properly supported team-based multiplayer modes and many new multiplayer game types." There will also be various new multiplayer games that are more based around heroes fighting villains as opposed to the simple deathmatch style match-ups from the original game.



## Sidekicks anonymous

When interviewing a developer it's always easy to ask them questions about the new game and how it will improve on the first but it's far more difficult to broach the subject of fixing errors made in the original. Although Freedom Force is without a doubt a well loved game there was one significant problem with the code - the companion AI which was erratic at best. Much of the time the companion AI would simply stand around when being attacked, forcing the player to







instruct them to defend themselves.

"One of the things that is disappointing in the original game is the necessity to micro-manage your heroes," says Chey, taking up the baton. "Basically, if you don't command a hero and they are attacked, they will often simply stand there and take it. The reason for this is because we are always very conscious of not causing the player grief by having characters do things that they were not requested to do (and thereby screw up the player's plans)."

Initially this sounded to us like a bit of retro-justification but we allowed Chey to continue. And he did.

"We are conscious of this problem and want to try to address it in the sequel. The method we are looking into at the moment is to give each character a certain degree and type of autonomy that is dictated by their 'personality'. So, for example, Minuteman is a disciplined character who tends to react in a stoic and controlled manner whereas El Diablo is a fiery hero who may easily over-react and doesn't take any attacks on himself (or his friends) lightly. We have the luxury this time of testing and prototyping these kinds of systems to make sure we get them right, so these designs may change as we search for the right balance between autonomy and controllability."

If anything, Jonathan Chey is more excited about Freedom Force vs. The Third Reich than even the most rabid of fanboys (such as yours truly). Sensing this I ask him just exactly what it was that excited him most about working on the sequel? His response is characteristically enthusiastic as well as honest.

"I'm just excited to still be



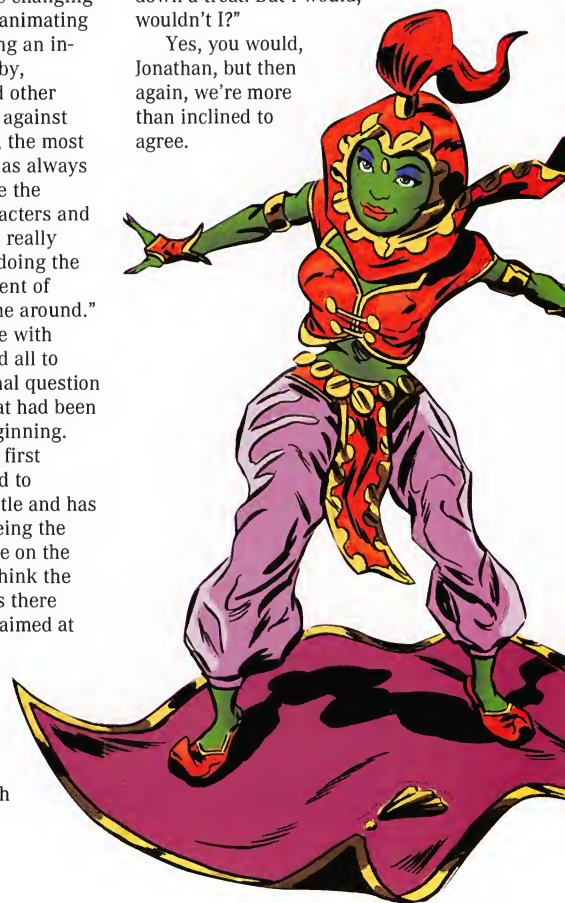
working on this franchise. I love many things about Freedom Force and I really wanted to keep working on it after finishing the first game. It's a joy to be able to take the time to do things right this time around. This game already looks and plays much better than the original and we have some really great ideas for new missions, characters, powers and so on. And there's a whole host of little things that we are changing and fixing like properly animating passive defences, having an in-game multiplayer lobby, introducing tanks and other vehicles you can fight against and so on. But overall, the most exciting thing for me, as always in Freedom Force, are the awesome new characters and the story. Also, I'm really looking forward to doing the multiplayer component of the game "right" this time around."

Unfortunately my time with Irrational came to and end all too quickly, so I fired off a final question for good measure, one that had been on my mind since the beginning. When Freedom Force was first released it really managed to capture lightning in a bottle and has been widely praised as being the only good superhero game on the PC. How does Irrational think the sequel will be accepted as there seems to be a lot of flack aimed at sequels at the moment.

"First rule of doing a sequel: don't break what ain't broken," Chey assures. "We sure as hell aren't going to mess around with

stuff that we got right the first time so I think people are going to enjoy this game at least as much as the first. But, we also have the chance here to fix things that we didn't quite get right the first time around. And, we have a lot better idea how to build really fun missions, balanced characters and make the character building system more flexible and powerful. So, naturally, I think this sequel is going to go down a treat. But I would, wouldn't I?"

Yes, you would, Jonathan, but then again, we're more than inclined to agree.









# The Movies

Lionhead is promising to make you a star. Fresh out of rehab for his CTU Marine Sharpshooter addiction, **Timothy C. Best** heads to Hollywood and hopes things don't go all Mulholland Drive...

"It's a wonderful feeling loading up the game and thinking 'I'm going to make a movie', says Adrian Moore. With a comment like that it's safe to assume that Moore is either a megalomaniac Hollywood doofus or he's the Team Leader on Lionhead's new game, *The Movies*.

"At that moment you feel free to play around with any idea you have, experimenting with your actors wearing different costumes, doing different things on different sets," he waxes lyrical.

"It's brilliant watching them play out scenes on your whims - making them run along a beach with exhaustion and fear, being chased by a monster, having them act out a distraught love scene of yearning and heartache on the set of a city rooftop. Put one of your actors in a big metallic robot outfit and the scene changes its meaning completely."

Now, who can resist a game that lets you spice up boring melodramatic pauses with robotic mayhem? Surely not I.

With *The Movies* Lionhead is attempting to blend a trio of games, each of which would send any sane developer fleeing in panic. First you have the *Movie Mogul Tycoon* thing. You start your studio in 1900 and work up to 2010, managing money; buying new equipment; paying to keep stars, dealing with the mafia and researching things like sound, colour, blue screens and ever more mind-blowing effects. Since most your money comes from putting bums on seats, the whole concept would fall down without an AI sophisticated enough to work out how good your films are, and whether the audience is ready for them.

Next we have the *SimActor* game, where our virtual leads have individual personalities, fall in love, react to their environment, become addicted to whatever's going as well as turning into screaming prima donnas. Only you stand between them and giant hissy fits.



## a trio of games, each of which would send any sane developer fleeing in panic

Finally, of course, you have that whole making movies thing. There's no business like Lionhead's business, that's for sure. The magic of the *The Movies* awaits...

### What's My Scene

You'd think that giving players the power to make whatever mini-movie their heart desires would be a huge ask, but Moore makes it sound easy. Apparently it comes down to mixing the right ingredients and letting it cook.

If you thrust a couple of actors of the opposite sex on to the stage, you can get a huge variety of reactions off the bat. If they are lovers, you get instant chemistry; if they just broke up, you get instant melodrama. Throwing a gun onto the set can be like pouring fuel onto a fire and you can be pretty sure sparks will fly. Congratulations, you have just improvised your first murder scene.

Moore elaborates: "It's then possible to grab a choice slider and

move it up or down to make them act out something else with the gun, such as being horrified finding it or pointing it towards the other one."

These sliders are the key to controlling the action that the scene, props and choice of actors create. There are even sliders for gore, romance (which can launch you into adult territory), and mood. You could turn *Keystone Cops* into *Kill Bill* with just a click and drag.

Apparently there are thousands of scenes from a variety of sets to act as a starting point and then you can assemble how you like, from whacking two together to making epics of more than a hundred.

Furthermore, each scene has a genre rating and you can combine them however you want to get your Western Comedy Romances.

"If you want to really get into detail with the content of your movies, you can dress up your sets - change walls and floors, decorate with objects, change the themes

Developer: **Lionhead** Publisher: **Activision** Distributor: **Activision** Due: **Q2 2004**





entirely such as making the set look grimy or futuristic," Moore adds.

Then you have the actors to mess with. You can dress your stars in just the right clothes, right down to picking their shoe colour. You can place one actor in a scene or crowd it with twenty. You can add extras standing in the corner or drinking coffee.

Once you have everything in place and being played out you then have to decide how you want to shoot it. There are static, dolly or aerial crane shots which can be tweaked to get just the shot you're looking for.

If this is all sounding a bit daunting, you can always delegate as little or as much work onto the



rest of your people including your script writers, directors and production assistant, who will fill in any blanks. Just be warned: as always, you get what you pay for.

## Cut!

The actual creation process is broken into a few stages. The first one is "dream up a movie", where you plot everything out. It's kind of like a combination of rehearsals and script writing. Once you have all of your scenes mapped out and in place then you actually go into the production stage.

When you do this you see the director go to his seat, the sets being finished up, the sound guys move into place and the actors assemble

(assuming they feel loved). While you are filming the sucker you can sit back and let the director call the shots or you can get in there and further tweak the sliders until your heart is content.

It all sounds pretty easy doesn't it? Well, Moore lets us in on a secret: it's easy to make films, but it's particularly easy to make bad films.

"Just cast some incompetent actors in the roles, assign a terrible director to the project, and leave lots of props lying around in the way of the actors so they trip up over them," he says. "Before you know it you'll have a terrible film on your hands."

When that happens, you'll know about it pretty quickly.

"There is a very complex system working within the game code to determine the success of every movie you make," says Moore.

"That complexity is not visible to the player - it feels like the movie-



## it's easy to make films, but it's particularly easy to make bad films

going audiences have natural and realistic tastes, clambering to see your big sci-fi epic when sci-fi movies are popular, queuing around the block outside the cinema with excitement when you release a movie featuring the biggest star of the moment."

The box office performance of your movie will set you up for your next blockbuster or it might send you down the cheaper, and more artsy, indie road for a while.

Don't forget there's the tycoon side of the game as well. Maybe you'd be better off making several cheaper movies, and avoid blockbusters altogether. Do you want to do things like keep cost down by making a bunch of sequels that reuse the same sets over and over? Maybe you'll wonder if it's

really worth forking out all that money for fancy directors and decent scripts... why bother when you have just upped your effects budget? Can you afford not to cast your biggest star just because he should be in rehab? There are a lot of tough choices associated with making a movie, but smart moguls will learn how to give the public what they want.

## Popular Demand

Since the game so heavily depends on the business of popular culture, having some clues to what the public is secretly hankering for is a vital part of the game. Lionhead has come up some interesting ways to gauge what's hot and what's not.

There are newspapers that report on world events, and a wise movie

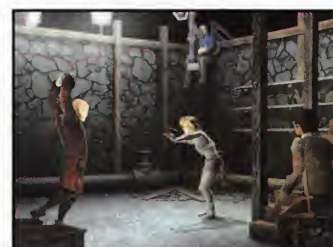






**Expanding Your Audience**  
If you're a little suspicious about the tastes of your virtual movie goers then you can always take your mini-movies to a whole new audience... the loons on the Internet.

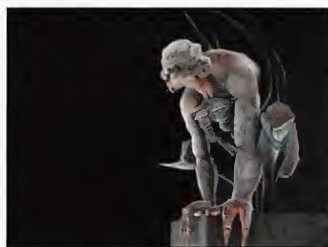
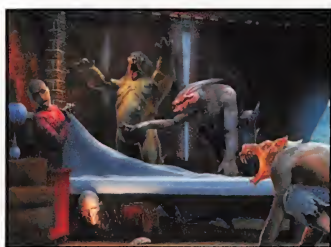
Since every movie you make ends up in its own little file, there's nothing easier than sending out your faves. Not only is there a place for your movies but there will also be monthly competitions run by Lionhead to find and reward the best productions. Players can put up their little trailers or they can get much bigger and record their own soundtrack and dialogue for their epics. Prepare for extreme comedy...



The Movies is all about giving players a fantastic world to play with, which is the gateway to even more fantasy worlds, sets and stories.

It sounds great but there are obvious questions. Will players have time to manage their studio while lavishing attention on their films? Will it be any fun dealing with actors, let alone agents? Can Lionhead nail the AI so audiences recognise quality and not just reward a player who follows the hints like a robot?

Once again Lionhead has come up with a game years ahead of its time, and once again it is showing us enough of the goods to make us think that it might just pull it off.



maker will cotton on to certain trends. Events like a well-publicised Royal Wedding will get people in the mood for romance, for example. While you are making movies you get feedback from your board of directors who give their two cents whether you like it or not.

After the movie is out there, you also get the dreaded review phase. Comments like "not another Western" combined with less than stellar box offices taking should help steer players away from their First Full of Spaghetti fixation.

Of course, with the right money and marketing you can always ignore the clues and tell people what they want. On the downside, that means getting your wildly unreasonable mega-stars out on the publicity trail, and that's a lot of M&Ms packets with the yellow ones picked out.

"The game makes you feel like you're dealing with movie stars with real personalities," says mover and shaker Moore. "At the start of their

careers they are hungry for work and fame, and are happy to do literally any role you ask of them, for any price."

Although some stars are as good as gold, most lose their minds as soon as their name appears next to one decent film. They demand bigger (and more expensive) trailers, their pick of roles and insane amounts of cash.

"They can't possibly turn up on set until they have seven particular types of flower planted outside the door of their trailer. The flowers must be a certain shade of red, and must be symmetrically arranged," he adds.

Of course, if they get too demanding you can always fire, or ruin, them if that's more your style. Naturally, Lionhead is trying to make sure that the actor element of the game is fun too. You get to do things like rename them, dress them how you like, send them to the gym for action roles and even get them a touch of plastic surgery.

You can recreate your screen favourites or get your own name up in lights; also if you keep them busy enough, hopefully they won't have time to get into too much trouble.









# Gettin' Down'n' Dirty

## With Windows



**James Bannan gets jiggy with a variety of flavours of Windows, showing you how to get the most out of Mr Gate's retirement fundraiser.**

**L**ove it, hate it or just barely tolerate it, Windows is the OS of choice for the vast majority of us, especially power gamers. It has the flexibility and more importantly, the support, and any game for the personal computer worth having is geared towards it. Having installed your particular flavour of Windows, you naturally want it to work well and meet your gaming requirements (although surpassing it is generally preferable!), and this usually means updating all the various Windows components like DirectX, patches and service packs, and also making sure that your hardware drivers are as up-to-date as possible.

This is all good and necessary, but behind the scenes, Windows is still very much looking after itself, running what it wants to, using memory how it sees fit and diverting resources

away from whatever you might be doing to meet its own requirements. Needless to say, this isn't good enough! So in this workshop we're going to look at how you can claw back all the resources possible from Windows, freeing up even more grunt for your gaming pleasure.

More so than Windows ME, 98SE is still popular with gamers due to its minimal overhead, as compared with Windows 2000 and XP. And the horrendous stability problems which plagued Windows 98 (first edition) are pretty much gone in 98SE (assuming you've installed EVERY update available!). However, like every version of Windows before them and after them, both 98SE and ME have their own ways of doing things, and the default system settings are not necessarily optimal.

Windows XP is MUCH better in terms of stability and performance, but it derives this

through greater operating overhead. Many of the features of Windows XP which consume memory and resources are unnecessary, while many features which will help boost performance are tucked away in obscure locations.

### Hard Drives

The first thing to consider is the hard drive settings. The performance of your hard drive is of paramount importance, and there are a few ways to maximise the way in which Windows makes the most of it.

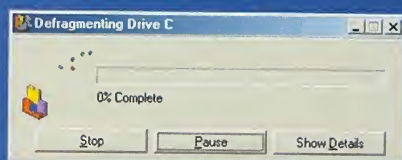
### Defrag, defrag

The two main file systems supported by 98SE and ME are FAT16 and FAT32 and unfortunately neither is particularly neat or tidy in their day-to-day operations, placing data wherever they want to on the drive rather than in a logical





sequential order. This means that your hard drive seek times get larger and larger as applications attempt to access data spread out all over the disk. Regular defragging is the answer here, and you can do this by double-clicking on My Computer, right-clicking on C: (or D: or E: - however many hard drives you have) and selecting Properties. Click on the Tools tab and select Defragment Now.



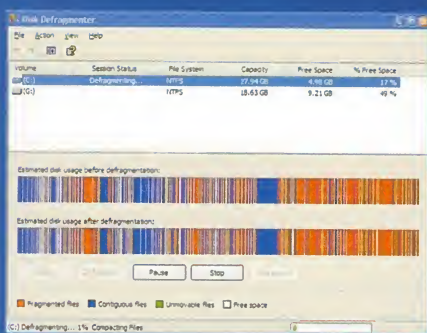
One annoying feature of the 98SE/ME defrag application is its habit of stopping and restarting before the defrag is completed. This is due to Windows or another application accessing the hard disk and making a change. Defrag needs to restart in an attempt to run a complete pass over the disk, but this can result in the process taking forever. The best way to get around this is to launch the defrag application as soon as Windows starts, ensuring there are no other applications running to cause problems. You can automate this process by creating a REG file (registry file) containing the following information:

#### RegEdit 4

```
[HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\Current Version\RunOnceEx]
"Flags"=dword:00000003
"Title"="Startup Defrag"
[HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\Current Version\RunOnceEx\Defrag]
"Cmd"="IIDEFRAG.EXE /ALL"
```

You'll need to restart for this to take effect, and if you haven't treated your hard drive to a defrag in a while, consider leaving it to run overnight.

XP handles defragging much better, and you won't have any annoying restarting issues. You can access the Disk Defragmenter in the same manner as 98SE/ME, or you can go into Computer Management by right-clicking on My Computer and select Manage. This is also available through the Control Panel. Then select the Disk Defragmenter option.

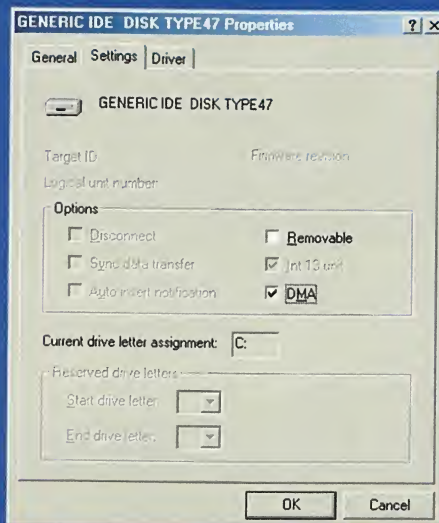


## DMA is your friend – sometimes...

DMA, or Direct Memory Access, allows your hard drives to access information from memory without needing to go through the CPU. This speeds up access times, which is obviously desirable. To enable this in Windows 98SE/ME: Right-click on My Computer and select,

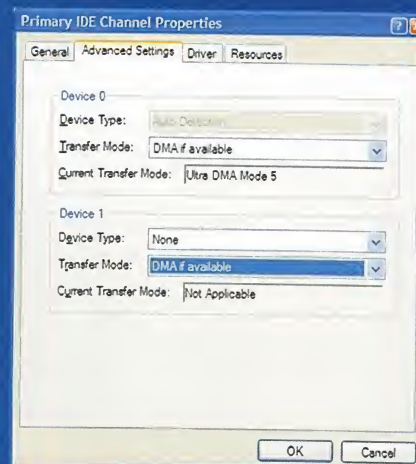
- Properties OR go into the Control Panel and select System.
- Select the Device Manager tab
- Select Disk Drives, select your hard drive(s) and click on Properties
- Tick the DMA check box if it is not already ticked.

If the DMA check box is greyed out, then it's possible that your hard drive isn't compatible. Most modern drives should be, so it's only likely if you're running something more than four years old. Also, if you experience booting issues, instability or bluescreening after you enable DMA, disable it asap!



In Windows XP, if your hard drives are DMA-compatible, XP will automatically enable this transfer method. However, it does this by auto-scanning the IDE channels and enabling/disabling DMA depending on what it finds. Auto-scanning takes a bit of time on startup, so you can tweak this by:

- Go into the Device Manager (right-click My Computer, select Properties, Hardware, Device Manager, or hold down the Windows Key and hit Pause – this will bring up the System Properties box too!)
- Expand "IDE ATA/ATAPI Controllers"
- Right-click "Primary IDE Channel" and select Properties
- Go to the Advanced Settings tab
- For the Device Type, turn off Auto Detection, and make sure the Transfer Mode is "DMA if available"
- OK any changes and do the same for the Secondary IDE Channel
- Reboot for any changes to take effect



Note that new CD-ROMs, CD-RWs, DVD-ROMs and DVD-RWs are all DMA-capable, but XP will often select PIO transfer mode by default for these devices. Turning off auto-detection for ALL devices will speed up boot time, especially when you don't have devices on a particular channel. Just remember, that if you add a new device after auto-detection is turned off, Windows won't pick it up unless you either specify a transfer mode for that device, or turn auto-detection back on.

## Disk caching

The disk cache is how 98SE/ME manages memory, like the paging file in Windows XP (more on that later). Basically it provides a dynamic area on your hard drive where Windows can place files for quick access. The larger this area, the quicker seek times Windows can manage. To alter the default settings, navigate to the Windows install folder (usually c:\Windows), right-click on the SYSTEM.INI file and select Edit. Scroll down to the [vcache] section of the file and find the lines MinFileCache and MaxFileCache. You can add these lines in if they aren't there:

```
MinFileCache=2,048
MaxFileCache=8,192
```

The values are in KB, so a MinFileCache of 2048 would set it to 2MB. MaxFileCache can really be anything you want, but it seems that values over 8MB (8192) can cause instability.

Two similar settings in Windows XP are the system cache and the memory paging file. By default, XP does not enable support for a large cache file, and yet systems with large amounts of RAM (256MB+) will benefit from this. To enable it, jump into the registry (Start, Run, REGEDIT), and navigate to

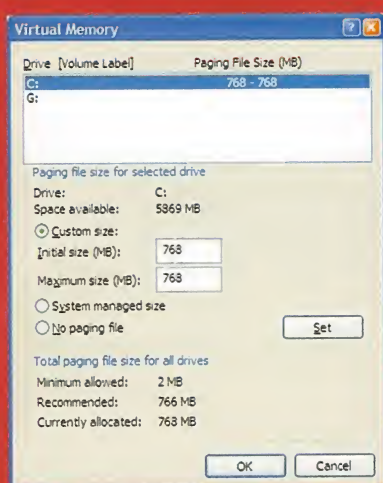
```
[HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Session Manager\Memory Management\LargeSystemCache]
and change the value from 0 to 1.
```

The paging file is a dynamic area on the hard drive which Windows uses to pass data to for quick access once the space available in RAM has been used up. The default setting is for a dynamic paging file, which resizes within pre-set



limits depending on the system requirements. However, it's actually a bit inefficient to have a dynamic file, as there are constant read/writes to the disk to change it (which causes fragmentation), and XP needs to keep a constant tab on how much it needs. A better way is to define a static file size, which simply sits there and gets used as needed. Here's how it's done:

- Go into System Properties.
- Select the Advanced tab, click on Settings
- Go to the Advanced tab again, and under Virtual Memory, click Change
- Make sure your main drive is selected, and click "Custom Size".
- Enter a number which is 150% of your physical RAM, so if you have 512MB RAM, type in 768. Make this value the same for minimum and maximum size, then click Set.
- OK out of the screens and reboot for the change to take effect

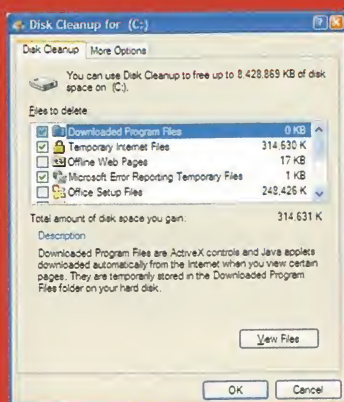


## CD caching

In days of yore when ownership of a quad-speed CD-ROM would incite envy and muttered whispers of "Lucky bastard!", Windows very helpfully read the CD ahead of time and cached the information for quicker access. Nowadays, if you're running a nice, quick 52-speed drive, this isn't really necessary, so you can safely disable this feature. Do this by going into the System Properties again, click the Performance tab, File System and CD-ROM and move the slider all the way to the left (Small).

## Housekeeping

One of the joys of Windows is how ANYTHING you do generates clutter – temp files, backup files, log files...you'll never need them, and yet there they are, taking up your valuable hard drive space and fragmenting it into the bargain. In Windows 98SE/ME, the best way to crack down on these files (especially after a fresh installation of Windows), is to do a File Search (Start, Search, Find Files or Folders) and scan for \*.tmp, \*.bak and ~\*. \* (note the tilde). Have a quick check to make sure you haven't saved anything valuable as a BAK file for some strange reason, and then just blow the lot away. Defrag after you've done this.



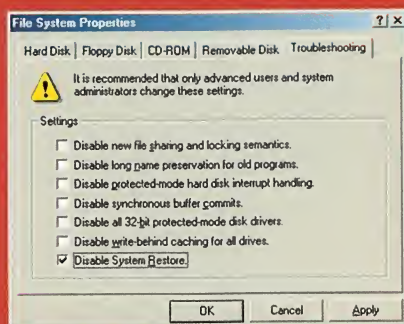
Windows XP has a nicer approach. Right-click on your hard drive in Windows Explorer and select Properties. Then click on Disk Cleanup. It will scan your drive for temp files which can be safely deleted, and it's actually pretty ruthless in freeing up space.

And for all flavours of Windows, delete your Internet cache regularly to prevent it getting too bulky. Right-click the Internet Explorer icon on your desktop and select Properties. Click on "Delete Files" to get rid of temporary files downloaded by IE – images, media, stuff like that. You can also use the Setting button to set this up to happen regularly.

## System Restore

If you do a lot of tinkering with your machine and you really, really want an easy way to get it back if something catastrophic goes wrong, then System Restore is a handy feature to have. However, it also backs up hundreds of megabytes in creating restore points, and if you don't really need it, that's a major waste of resources. To turn it off in Windows 98SE/ME:

- Open up the System Properties box and click the Performance tab
- Select File System, then Troubleshooting
- Click Disable System Restore



In Windows XP:

- Open the System Properties box and click the System Restore tab
- Click the "Turn off System Restore on all drives" box

If you're running Windows ME, one nifty thing you can do is change the way Windows behaves. Go into System Properties, select the

# Top 10 Must-Haves

Check the CD for these handy apps.

## 1 GAME XP

This one-click application is designed with gamers in mind. It stops unnecessary services and tweaks your video driver system for optimal gaming performance. It also lets you save your system settings in case you want to undo all the changes.

## 2 SAFE XP

Also from Theoretica Software, this application targets your Windows settings – security, privacy, networking and services. Like Game XP, it's lightweight, effective and also free, and is a great counterpart to its gaming-focused partner.

## 3 TWEAK-XP PRO 3

From Total Idea, this application will take your XP installation and slap it sideways. It will help you to change or optimise almost every aspect of XP – system, security, desktop, memory, hardware and applications. It's basically a complete system in itself, and should be part of any serious tweaker's collection.

## 4 TWEAKING TOOLBOX XP 1.50

Another all-in-one package by Rose City Software, this one was actually commended by Microsoft – so that either means it's great or it actually missed out on a load of tweaks which MS was rather pleased about!

## 5 TWEAK UI 1.33

Developed by the boys of M\$, it's part of their PowerToy range of development applications. These actually tend to be quite good (you'd hope so, wouldn't you?), and support Windows 98 and ME.

## 6 X-SETUP PRO 6.5

This application is still in beta form, as it recently changed from X-Setup 6.3 to the Professional version. It's notable in that it supports all versions of Windows up to and including Windows 2003.

## 7 BOOST XP

From SysTweak, BoostXP offers more than just system enhancements. It also incorporates a registry cleaner, utilities for repairing split files and broken shortcuts (amongst other things), and generally lets you take control of your XP installation.

## 8 PC OPTIMISER 1.02

This is another comprehensive package, offering registry cleaning, application management and memory optimisation, and it also supports all versions of Windows.

## 9 INTERNET TWEAK 4.40

By Magellass Software, this application targets the network settings in all versions of Windows, and also optimises settings for IE, Outlook Express and Netscape.

## 10 DOWNLOAD BOOST

Also by Magellass, this application optimises the speed of your downloads, and can resume broken downloads, perform scheduling and split downloads across multiple sources. It works for all versions of Windows.





Performance tab and then File System. Pull down the drop-down menu and select "Network Server" and reboot. This setting will make Windows allocate much more RAM to the processing of data, which will basically speed up every application. Be careful on machines with less than 128MB RAM, however, as intense applications like games will use up all the RAM and spill over into the virtual cache, which will cause hard drive thrashing and slowdown.

## Video Tweaking

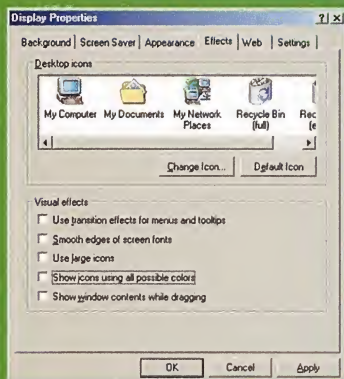
Windows has become progressively easier on the eye as time has passed, but all of that eye candy has to be serviced from somewhere, and it's generally from your graphics card GPU, memory and graphics drivers. We're sure you can live without some of the nice effects and would prefer to pump those freed-up resources into gaming.

The first thing to make sure of is that you are using the latest graphic drivers and DirectX version. Places like TweakTown (<http://www.tweaktown.com>) are run by gaming enthusiasts, and have some good articles and workshops on the best ways to install the nVidia Forceware or ATI Catalyst drivers. You can check out the latest version of DirectX at <http://www.microsoft.com/directx>. To see what version you are running, go Start, Run and type in "dxdiag" (no quotation marks).

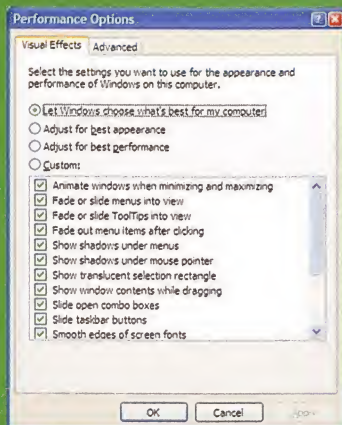
## Back to basics

All versions of Windows have settings to improve their look on screen. While this could be important in a work environment, it's less of an issue if you're mainly interested in gaming. Plus, these enhancements chew up system resources (boo!). So, in Windows 98SE/ME:

- Right-click on the desktop & select Properties (or select Display in the Control Panel)
- Select the Effects tab
- Turn off all the visual effects (although icons not displayed in full colour look REALLY bad & this might offend your sense of aesthetics...)
- While you're in this area, click on the Settings tab, Advanced and Performance, and make sure that Hardware Acceleration is turned all the way up
- OK to save and reboot for everything to take effect, although visual effect changes should take place straight away



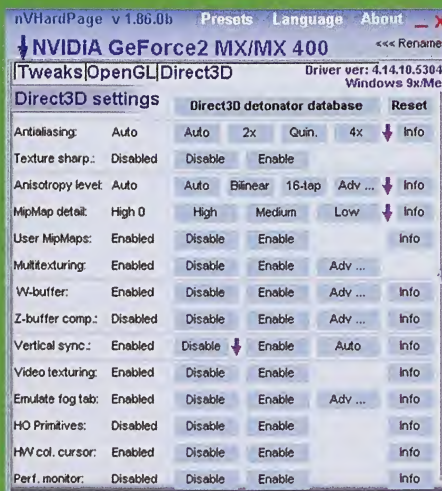
Windows XP has similar settings, which are found in Display Properties, Appearance, Effects. However, it also has a much more comprehensive list of tweaks available in System Properties, Advanced, Performance - Settings. On the Visual Effects tab, you can adjust for optimal appearance (all settings turned on), optimal performance (all settings turned off) or a custom blend of the two. The more settings you turn off, the plainer Windows will look, but the quicker it will handle and the more memory it will free up.



## Serious tweaking

To get the most out of your graphics drivers, you'll need a third-party application written specifically for it. You can get nVHardPage, a custom nVidia tweaker, from <http://www.guru3d.com/nvhardpage>.

There are a couple of applications for the Radeons too - RadeonTweaker and Rage 128 Tweaker. However, these applications are a couple of years old, and it's doubtful that they can get as much out of the new ATI cards. You're better off looking around on the net at places like TweakTown for more up-to-date information. An application that handles both admirably is PowerStrip, available from [www.entechtaiwan.com/ps.htm](http://www.entechtaiwan.com/ps.htm), which has a raft of different settings for your video card.



## Network Enhancing

There's nothing worse when you're aiming down the barrel of your rocket launcher at some noob who's about to cop it in the face, when network lag hits you instead. There's not much you can do if it's your ISP's fault (other than switch!), but you CAN do lots to make sure that it isn't your fault. Windows' default network settings aren't ideal, but that's because it has to cater for every possible kind of internet connection. However, you'll obviously want to squeeze as much bandwidth out of your connection as possible to prevent screams of frustration.

On Windows 98SE/ME, jump into the registry and navigate to

[HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\VxD\MSTCP], and check out the following values:

**DefaultRcvWindow** - set this to 65,535 if you're on dialup, or 256,960 for broadband  
**DefaultTTL** - this should be 64 no matter what you have  
**PMTUDiscovery** - 0 for dialup and 1 for broadband  
**PMTUBlackHoleDetect** - this should be 0  
**SackOpts** - this should be 1

The equivalent settings in Windows XP are found in

[HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Tcpip\Parameters]:  
**GlobalMaxTcpWindowSize** - 65,535 or 256,960 (see above)  
**Tcp1323Opts** - this value should be 1; it enables large TcpWindows  
**DefaultTTL** - 64  
**EnablePMTUDiscovery** - 0 or 1 (see above)  
**EnablePTMUBHDetect** - 0  
**SackOpts** - 1  
**TcpMaxDupAcks** - value should be 2

If these settings aren't there in the registry (which they probably won't be), don't be afraid to add them in! You do this by navigating to

[HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Tcpip\Parameters],

right-clicking within it (in the blank space on the right-hand side), and selecting New - DWORD (there are various options, but all these settings are DWORDs). Type in the name as given above, and then just enter the value. You'll need to restart for them to take effect.

If you're interested in getting a thorough explanation of these tweaks, check out <http://www.auldart.co.uk/broadbandtweaks.html>

More things to check for are your normal network settings. For example - what protocols are you running? If you're using Windows 98SE/ME, you might still be running NetBIOS, which is an obsolete, non-routable protocol (meaning it can't be used over a wide-area network like the internet). It was only ever used for small offices, and has been totally superseded by TCP/IP, so uninstall it and get rid of some network chatter in the process. The same applies for IPX/SPX, although it would be very strange (and highly eccentric!) to be

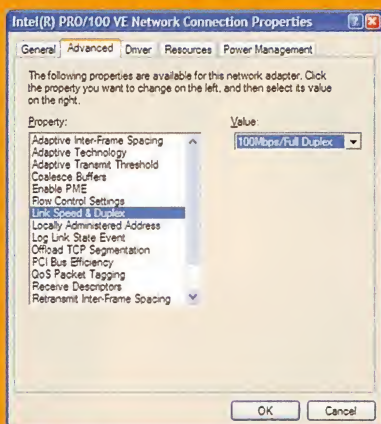


running this on a home network. If you're in a work environment, your company might be using a Novell backend, so be careful and check before uninstalling it.

Another interesting feature of Windows XP is QoS - Quality of Service. This lets applications which request priority service take up more bandwidth - Windows assigns them a dedicated amount of network bandwidth, and all other applications make do with the rest. This would be awesome if you could dedicate 100% of bandwidth to online gaming or at LAN parties, but unfortunately you can't! So, for the moment just uninstall QoS, and when the first game comes out which supports it, reinstall!

Another feature of Windows is that it auto-detects what type of link you have if you have a network card. That's nice to have, but it also takes up resources while it's doing that. So:

- Jump into the Device Manager, right-click on your network card and select Properties
- Select Configure, then select the Advanced tab
- Find the property "Link Speed and Duplex"
- If you're connected to a 10/100/1000 hub, select 100Mbps/Full duplex or 1000Mbps (1Gbps)/Half duplex
- If you're connected to a switch, choose the speed and Full duplex



Duplexing is where upstream and downstream traffic can either travel one at a time (half duplex) or simultaneously (full duplex). Full duplex is nice, but if you're connected to a hub, you don't want it. Hubs do not have dedicated circuits, so the bandwidth within the hub is shared between all connecting devices, which means it can't prevent packet collisions (TCP packets trying to do the same thing at the same time). Full duplex on these devices means that you're simply overloading the hub with packets and causing a bottleneck. Switches should be able to handle full duplex, though.

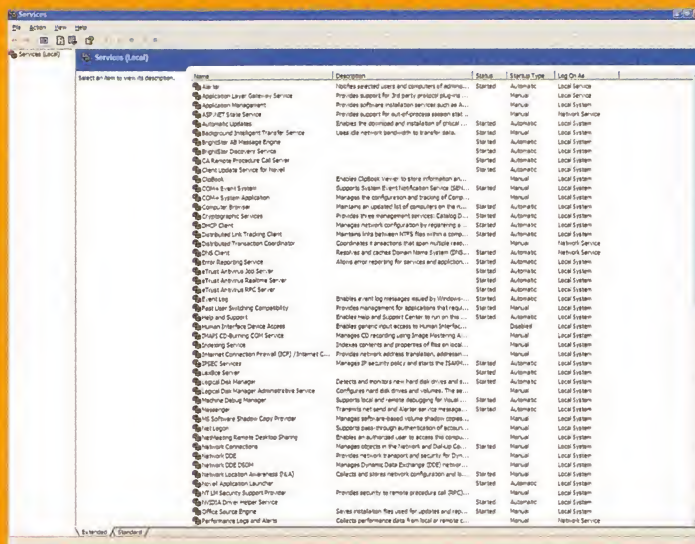
Another bandwidth-saver is to get rid of Windows Automatic Updates. This is where Windows goes back to the Microsoft Mother Ship to look for updates, patches and so forth. While it's nice to have your system up-to-date, it's also a network hog. Go to System Properties and click on the Automatic Updates tab, then untick

the "Keep my computer up to date" checkbox. You can still go back to the Windows Update site (<http://windowsupdate.microsoft.com>) to manually update Windows.

And if you're going to disable automatic updating, you may as well disable the corresponding service, as described below.

## Improving the service

Based on the NT-series of Windows platforms (NT, 2000 and XP), Windows XP uses services to perform various tasks behind the scenes. Many features, like fast-user switching and network browsing rely on these services being active. There are, however, many services enabled by default which really don't need to be - they serve no practical purpose and just chew up memory. To access the XP services list, either right-click on My Computer, select Manage and select Services from the left-hand window, or go Start, Run, and type in "services.msc" (no quotation marks).



To edit the status of any service in the list, you can double-click into it to start, stop or restart it, and to set its status on startup to Automatic (meaning it will start straightaway), Manual (meaning that it's enabled but not started), or Disabled (meaning that you will have to change it's status in order to start it at all). Here's a list of services enabled by default which you can safely stop and disable:

**Alerter:** this lets you send and receive messages via a Windows LAN. If you're on a home setup, this isn't necessary

**Automatic Updates:** this automates critical updates from the Windows Update site or via SUS. If you turn this off, you can still update manually by going to the Windows Update site

**Clipboard:** this allows users to copy information saved in the clipboard between computers - really isn't necessary

**Fast User Switching Compatibility:** this let's multiple users switch profiles quickly. If only you log on to your computer, you don't need it

**Indexing Service:** creates a text index of local

files for faster searching. Unless you do heaps of searching, don't bother

**Messenger Service:** sends messages via the Alerter service. If you're not using one you don't need the other!

**MS Software Shadow Copy Provider & Volume Shadow Copy:** used for volume shadow copy backups. Really unnecessary

**Net Logon:** used for logging into a Windows domain. Unnecessary for a home machine

**NetMeeting Remote Desktop Sharing:** if you don't use NetMeeting, then you don't need this. Even if you do use it, you can still disable the service, but you won't be able to share out your desktop

**QoS RSVP:** if you've disabled/uninstalled QoS on your network cards, then you don't need this either

**Remote Desktop Help Session Manager:** if you don't want to use Remote Desktop (and most people don't!), then you can disable this

**Routing and Remote Access:** sounds

important, but it's only used for VPNs (virtual private networks), so unless you use these, disable it

**Smart Card/Smart Card Helper:** not useful unless you use card readers

## A final few words

All these tweaks and setting changes will help improve your Windows performance immensely. You can also look at what applications you run on your machine and how you manage them. For example, don't do heavy

downloading while playing games, or DVD extraction or file compression. Games really, really want everything your machine can spare - and then some! And at the risk of sounding controversial, you should disable your virus software whenever you're about to game. Anti-virus packages are VERY memory and processor intensive - basically nothing gets done on the machine without their involvement, and the performance gains to be had by disabling them are considerable.

All the tweaks we've discussed in this workshop are all applied manually, but there are some fantastic third-party applications which take the mess out of tweaking - funky user interfaces and wizards to automate the tweaking process. They perform the same functions (registry editing and cleaning), but save you the need to go trawling through registry keys yourself. Two of the most popular ones on the market at the moment are TuneUp Utilities 2003 and Tweak Manager 2.1 - you'll find trial versions on the cover CD





# MOD-LIFE #1

## HALF-LIFE

When you think of modding, you think of Half-Life. Or Counter-Strike. Valve may not have actually conceived the concept of modding, but the Half-Life developer certainly gave birth to and fostered a now thriving community centred around the ability of players to rewrite and build upon its own game. **Timothy C. Best** investigates the Half-Life modding community







**Y**ou've read Mod-Life, now prepare your puny human intellect for the mighty Mod-Life Feature! Instead of merely looking an individual mod scene to see what makes it tick. For our first feature there were only really two choices; some version of Quake, which caused the mod-scene to explode, or Half-Life, which elevated the art to professional levels. After a brief flashback to Games 101 (where I'm pretty sure Lara Croft was the teacher) we realised that Half-Life fulfils the criteria of being "some version of Quake" and with the gentle prod of Counter-Strike's world-shaking popularity (like an Uzi in the back) our course was set.

The mighty HL scene isn't a creature to be tackled lightly so it was imperative that we assemble a crack team of veterans who know the ways of the beast ... an undertaking to do Lee Marvin proud. Naturally, we had to start off with Half-Life's developer Valve, so we grabbed John Cook. Then we tracked down the co-creator of Counter-Strike, Jesse Cliffe, as well as Day of Defeat's John Morello II to give us their rags-to-retail perspective. To round things out, and get away from Valve employees, we talk to folks embedded in Natural Selection, HL Firearms, Action Half-Life as well as Aussie-made Kannonball.

Between these guys we figure we should have enough firepower to pin down a thing or two about what sets Half-Life out from the rest, and

why this engine – first released more than five years ago – manages to spawn mods that tackle everything the big boys throw at them and come out smiling.

## The Set Up

"When Robin [Walker] and I first started making TF, there wasn't much of a mod scene to speak of – it was mainly all custom maps and doom.exe hacks," says Valve's John Cook. The game he was working on was a Quake mod called TeamFortress. It added a little something to the classic shooter mix – character classes – and evolved into something so impressive that Valve not only hired Cook and Walker but they also adopted the TeamFortress name and way of thought for their official Half-Life multiplayer game.

Like most of the early mod makers, these guys weren't in it for the fame or big buck and Cook says the "first few versions of TF we just made just for ourselves," with uploads to a mod ftp site an afterthought.

"It was only when we started getting email from people telling us how much fun they were having playing it that we realised it was something we should continue. We didn't even have a webpage until version 1.2," he says.

From those humble beginnings Cook has become the Online Development Manager at Valve, overseeing the online components of TeamFortress2 among other things.

Coming from a mod background, and being on the frontlines, Cook makes it clear that modding

is the life blood of Half-Life and Valve knows it: "As a result, just about every decision made at the company gets checked through a 'What does this mean to mod authors' line of questioning." That might seem like a pretty extreme statement to make, but you can be pretty sure it's more than just talk.

Action games, like action heroes don't tend to age well. They start out mixing it up with Bruce Lee and end up in a TV series of Walker Texas Ranger where they also sing the theme song. For Valve's game to stay at the front and centre of gamers' collections for more than five years is evidence that there's something very special going on here.

## Choice of a New Generation

So, just what is it about Valve's creation that keeps the creative kids coming back?

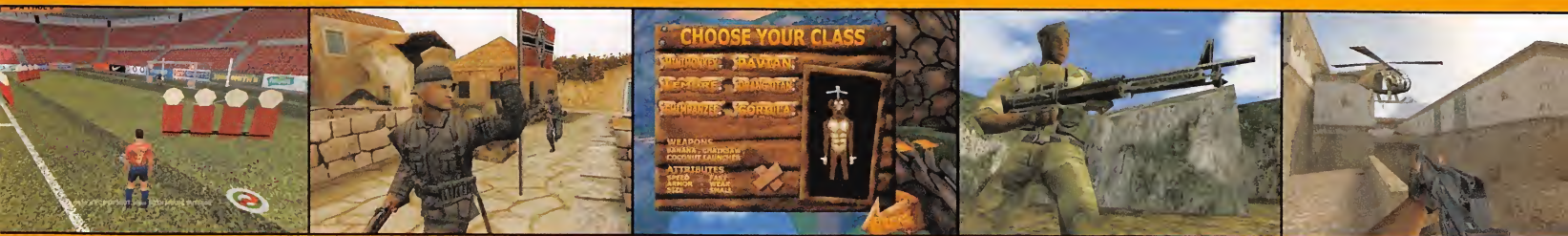
"Firstly, Half-Life is easy to mod for. Built using the Quake engine, which was already noted for modification, Half-Life continued the tradition in grand style," says Kannonball's lead designer Damian Scott. Scott put in a stint on the original TeamFortress with Cook and Walker, we figured he should know.

What's more, "Valve actively encouraged the mod community by releasing a Software Development Kit (SDK) that gave developers an unprecedented amount of control over their gaming environment," he says.

So the first key is accessibility and that key







opens a lot of doors. With the cost of developing a full game running into the millions, modding Half-Life offers an alternative at a fraction the cost which is pretty much a development environment unto itself.

Valve's Cook says that, "so many people bought Half-Life that it essentially commoditised the basic technology for making FPS games, leaving mod makers to worry about just making fun games."

For example, when Natural Selection's Charlie Cleveland wanted to see how far he could go making a hybrid first-person shooter and RTS game, he settled on Half-Life to do it and the main reason was popularity.

"There are plenty of other great engines out there, but to make a mod that will be seen by a lot of people, you really have to go with Half-life," he says.

## with the cost of developing a full game running into the millions, modding Half-Life offers an alternative at a fraction the cost

Beyond that, "the extras that Valve has continued to put into the engine (voice support, HLTV, anti-cheat, Steam, etc.) have really added a lot of value. Most of these new features aren't on other current engines, let alone next-generation engines," he says.

### The Scene

You have the technology and you have the developers, but you also have the vibe of the scene itself. Modding is a wildly communal thing, almost tribal. The line between player and developer is pretty much non-existent and often the best way to work out how something is done is to find a tribal elder who has already burn his fingers learning how to kindle a fire with a couple of twigs.

Kanonball's Damian Scott is one guy who has benefited from the camp fires. He says: "The spirit of the Half-Life mod community has been a defining characteristic of my persistence with the mod making - from level designers who post tutorials on the most mundane yet critical aspects of their craft, to programmers who document their weird and wonderful experiments with the Half-Life engine, there is an atmosphere of innovation,

where you feel you can make something that will really connect with people."

"When my enthusiasm for Kanonball waned after years of development, it was a fellow developer who offered me the support and guidance to continue the struggle. In this business, you only fail if you give up."

Half-Life Firearms' Ben Irwin says that a lot of that is normal for most mod communities, but that Valve has taken things a notch higher by putting in the extra effort, "creating official sites and mailing lists to help centralise everything. Other developers are catching on and doing the same, such as Epic with their Unreal Developer Network."

CS's Cliffe still remembers the first time he sent a question into Valve and he got a reply from Robin Walker himself. He says he was beside himself. It's the little things that count.

"When you have the support of the community

in terms of numbers combined with the company to help you with any problems you run into, it's an ideal situation," Cliffe says. "The Half-Life community spirit is nothing short of amazing. So many people from Valve have come straight from the mod community and it has made us realise that the community is what keeps your game going years after release."

Of course the community is made up by more than just developers and Valve, and while a campfire warms it can also burn. Natural Selection's Charlie Cleveland says that the community looks like any gaming community to him: "It's big, passionate, opinionated, creative, and critical. It's the best and worst part of the game, equally happy go-lucky and bitter."

"The community has supported us, flamed us, and are both the reason we make games, and the reason some of the team has burned out and left forever. They are just a big group of people, equally endorsing us and cheering for our demise."

### The Modders

From the outside, modding seems like a strange obsession. You slave for hours every day, while

holding down another job, so that you can get flamed by a bunch of lamers who couldn't code SOS with Morse standing right next to them. There's no money and you don't really own the game since you are using someone else's engine. What type of person persists in the face of all of this? What sets a modder in motion?

"Yeah, it's definitely long and thankless," says Charlie Cleveland, "It's not like you ever have a time where you're done, you've made your money, and you get to move on. Everyone wants you to keep updating the game forever, and of course, they (usually) don't pay for it. It can be hard to keep going for years, and we do get burned out after awhile."

That's the downside, but, as Cleveland points out, it is a great way to get noticed and managing to make a something that thousands of people are playing at any given time is a good indicator that the game company you've set up - in Cleveland's case Unknown Worlds Entertainment - has a future.

Not that Cleveland sounds like he had any doubts: "I would've loved to make NS as a commercial game, but I lacked the resources to make or license an engine, or to get the widespread publicity through retail. I think we've gotten more exposure as a Half-Life mod (with an eight million player or so installed base), then we could've gotten by putting our game into retail."

Since his game has gone retail, it's a little ironic but Day of Defeat's John Morello II has a slightly different take on things. He's your more classic arts-for-art's-sake guy: "I think that as a developer, if you reach the point where you feel your job is thankless then it's time to try something else."

He says that he joined the DoD team because he didn't want to just complain about the games out there, he wanted to do something about it. He wanted to make the game that he wanted to play.

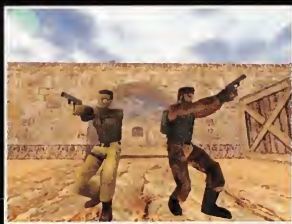
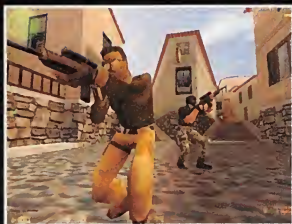
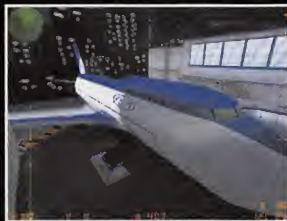
"I really think that should always be the major motivation for any developer, within reason," he says.

"You can make a 'Sitting in traffic' simulation mod, and you can be happy, just as long as you aren't expecting a large player base to materialise."

Then of course, there's the wild ride of collaboration that's hard to find outside of the modding world where anything can be possible and goodness only knows what the rest of the team, scattered across the world has tacked to the







## STRIKING GOLD

When you're talking about mods, any mods, there's one title that stands out: Counter-Strike. If it were a gun, it would be what Dirty Harry uses in wet dreams. Some estimates give this single Half-Life mod dominance of more than 80% of the online action market. I don't think anyone is game to argue. When this thing went retail, it sold more than 1.5 million copies, which isn't bad in and of itself, but it's mind blowing when you think you can download it for free and you always have been. The game headlines at professional gaming tournaments across the globe and on top of all of that, people have been playing it steadily since its first release almost five years ago – you'd think everyone would be sick of it by now but CS just keeps on taking gamer hostages and making us like it.



## THE VALVE EDITING RESOURCE CENTER

<http://www.valve-erc.com/>

If you're checking out the HL mod scene, then this is the place you need to visit. When we asked our experts about the best HL resources around all of them pointed straight at VERC. From simple tutorials, to the latest jury-rigged effect it'll be on show here. If you have a problem, chances are that someone lurking around this URL will know the answer. If you burn with a game idea and have decided that making in Half-Life is the only way to reach millions of people, then this is a good starting point, and if you look around a bit you'll even find the help-wanted/needed section. It's pretty hardcore but that's a good thing, right?





## PROFILES

### ACTION HALF-LIFE HOOK-UP

NAME: Nate "LPlasma" Purkeypile

POSITION: Modeller/Artist

TOP FIVE HL MODS:

Desert Crisis, DOD, TFC, Ricochet and AHL.

MOST UNDERRATED MOD:

Desert Crisis

BEST HL RESOURCES:

<http://collective.valve-erc.com>

HL MODDING HOTSPOTS: City-17,

HL2Central, anything non-GameSpy

### COUNTER-STRIKE RECON

NAME: Jess Cliffe

POSITION: Co-Creator,

Game Designer, Artist

TOP FIVE HL MODS: Day of Defeat, Natural

Selection, Sven Coop,

Buzzybots, Monkey Strike

MOST UNDERRATED MOD: Snow-Wars

BEST HL RESOURCES:

The Valve Editing Resource Centre

<http://collective.valve-erc.com/>

HL MODDING HOTSPOTS:

VERC Forums: <http://collective.valve-erc.com/index.php?area=forums>, HalfLife2.net:

<http://www.halfife2.net/>, City 17:

<http://www.city-17.net/>

### DAY OF DEFEAT CONTACT

NAME: John Morello II

POSITION: Artist, Animation, Frontman

TOP FIVE HL MODS:

Day of Defeat, Counter Strike,

Natural Selection, International Online Soccer,

Hostile Intent.

MOST UNDERRATED MOD:

Battle Grounds

BEST HL RESOURCES:

<http://collective.valve-erc.com>

HL MODDING HOTSPOTS:

<http://collective.valve-erc.com>,

<http://www.dayofdefeat.net/forums/index.php>

(The DoD forums contain some sections on how to create different aspects of HL Mods & are full of very competent and helpful users.)

### FIREARMS INSIDER

NAME: Ben Irwin

POSITION: Team Leader, Graphics, Modeller

TOP FIVE HL MODS:

Natural Selection, Sven Co-op,

The Specialists, Day of Defeat,

Team Fortress Classic

MOST UNDERRATED MOD:

Sven Co-op. Valve have been promoting it a lot recently though, so hopefully people will start taking more notice. I'm looking forward to the Half-Life 2 version.

BEST HL RESOURCES:

<http://collective.valve-erc.com>

HL MODDING HOTSPOTS:

<http://collective.valve-erc.com>

### KANONBALL SOURCE

NAME: Damian Scott

POSITION: Lead Game Designer, Keeper and Kreator of Kanon Lore

TOP FIVE HL MODS:

Ricochet, Kanonball, Science & Industry,

Deathmatch Classic Counter-Strike

MOST UNDERRATED MOD:

Ricochet! Oh, and Kanonball!

BEST HL RESOURCES:

<http://collective.valve-erc.com>

HL MODDING HOTSPOTS:

<http://collective.valve-erc.com>

### NATURAL SELECTION CONNECTION

NAME: Charlie Cleveland

POSITION: Programmer, Game Designer, Leader

TOP FIVE HL MODS:

Gloom, Counter-strike, Day of Defeat,

Vampire Slayer, Deathball

MOST UNDERRATED MOD:

Gloom

BEST HL RESOURCES:

Valve's hlcoder list,

<http://collective.valve-erc.com>

HL MODDING HOTSPOTS:

Planethalfife.com, www.igda.org

### VALVE REPORT

NAME: John Cook

POSITION: Online Development Manager (Programmer)

TOP FIVE HL MODS:

Day of Defeat, Sven Co-Op, The Specialists, International Online Soccer, Natural Selection

MOST UNDERRATED MOD:

Science and Industry

BEST HL RESOURCES:

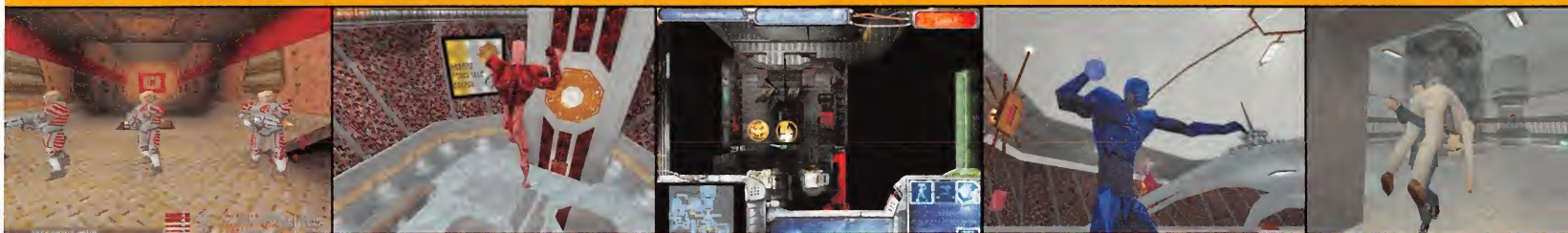
The Valve Editing Resource Centre

<http://collective.valve-erc.com/>

HL MODDING HOTSPOTS:

<http://articles.thewavelength.net/>





side of their drawing board.

Kannonball's Damian Scott explains, "The one thing that really keeps you going is the collaborative factor in mod making - working with artists, designers, testers, and programmers on something you can all say is your own is compelling - it's part curiosity, part pride, part potential, but all rewarding."

Finally, just knowing that people are playing your game seems to make everything else worth it. Our Counter-Strike co-creator, Cliffe, says that their little project didn't start out with flocks of players and the fact that there were just people who were really into their game made it worthwhile. A small cult following would have registered as a success for them... world domination, now that was just a perk.

Nate Purkeypile, from Action Half-Life says that whether you're in it for a job, to put on your resume or just for fun it doesn't matter in the long run. It's not like there are pretenders to the throne here. "The people that do this, even if they want to be professionals, they are still people who care about what they do a lot," he says.

"If they aren't, they never do it right."

## Getting it Done Right

Okay, so you're passionate. You have an idea and you have the software development kit to join one of the hottest mod scenes going. You think you're ready, but are you really ready to go?

"Probably the most important lesson I've learnt from modding with Half-Life is: make sure you choose an engine that already does the style of game you want to make," explains Scott.

"Probably the most critical choice you will make is the engine you choose to use. Ultimately, choose the engine that will make the best game, not the one that has the best features. Kannonball suffered initially from what we referred to as 'too many grey areas' - we were wanting to do things with our game that we didn't know Half-Life could do. Most of the time we were pleasantly surprised, but on a few occasions, we needed a major rethink."

Even going with something fairly solid and not too far out, the challenges are still impressive. Even for a mod like Firearms that keeps a modern theme and uses familiar weapons, you still find yourself pushing the engine in ways it wasn't meant to go. "At first, the challenges were mostly associated with overcoming limitations with the engine," says Irwin.

"Although it was extremely flexible, there were some things that it simply wasn't designed for. We had quite a few cool things half-implemented which then had to be abandoned because of various issues."

Beyond that, the popularity of the Half-Life mod scene can also be a double-edged sword. Irwin says that after the first release more and more mods with similar themes kept appearing which created a whole new challenge: standing out without having to put on a clown suit to do it.

"We eventually adopted a low-level character development system, which added a whole new aspect to the mod. More recently, the challenges have been keeping the mod fresh and exciting to bring in new players, while keeping things familiar enough so that veteran players aren't alienated," he says.

"It can be a lot harder than it sounds. If your mod doesn't offer anything new in terms of gameplay then you're going to have a very hard time being competitive without very good presentation and high quality visuals.

"It would be more constructive to come up with an original idea that people will want to play," he says. In such a crowded environment, keeping your mod at the front of the mosh pit will definitely keep you busy.

## The It Factor

So what makes Half-Life so special? Going the extra mile. It's that simple.

Counter Strike's Jess Cliffe says, "The fact that a five year old game is still being modded so zealously is a testament to the longevity of the platform that Valve has invested a lot of time and effort in."

Whether it is in support, the fact that Valve has a habit of hiring from the mod scene, the accessible SDKs, trying to get a centralised and working digital distribution system up, showcasing talent at Mod Expos, adding new features, or just giving modders space to use all their toys, Valve has come to the party and brought the togas.

They even made the engine with modding in mind. With this kind of support available it's no wonder that developers looking to just get down the brass tacks of making a great game ended up modding here. Of course it helped the cause no end when Counter-Strike evolved from its Action Quake roots and slithered into the warm embrace of Half-Life, setting a blazing example of what

## TOP TEN REASONS TO MOD IN HALF-LIFE

AS STATED BY OUR PANEL OF EXPERTS

- 1 Huge installed user base (any action fan worth their salt has HL)
- 2 Updated feature list includes elements like voice support, digital delivery and anti-cheat systems
- 3 Developer support ... just e-mail the Valve Software engineers
- 4 Mod Expo, somewhere to put your work on show, to impress your folks who don't have the 'net
- 5 Well documented SDK (software development kit)
- 6 Engine flexibility
- 7 Great network code and prediction optimisations
- 8 Well developed modding community to mine for ideas and solutions
- 9 Valve just might hire you
- 10 Upgrading mods to Half-Life 2 should be relatively easy, according to Valve, so modders who have gone with HL don't have to worry about going out of date

was possible, and showing just how many people you can reach bouncing off Valve's baby. It also helps that Valve hasn't released a follow-up game in the half-dozen years between Half-Life 1 and 2. At least we know they've been doing something.

So, you might find mod scenes just as passionate, game engines with better technology, equipped with better tools and you might find a game boasting more players than a rap video, but the real trick is finding all of those things in one place, because it's the mix that turns Half-Life's Mod-Life into a party.

Now if only Valve would pour out that sequel...





# GAMES IN REVIEW

**A** shortage of games to review this issue got me thinking about the issue of short games. It seems more and more gamers are getting their knickers in a knot over game length. If this RPG doesn't give me 100 hours of gameplay then I've been ripped off, they cry. I finished this shooter in less than 10 hours, they wail. I'm still playing Civ II, says one smug guy up the back.

At times this issue dominates all other discussion. I've read forum threads where Max Payne 2 or Call of Duty, to name to recent examples, have been consistently slammed for being too short - "I beat it in 8 hours!" - with nary a word about how sweet those hours actually were, what difficulty they were playing on, how often they quicksaved and whether they enjoyed it enough to jump back in and start again.

Since when did game length become synonymous with game quality? Given the choice would you choose a brilliant, short game or an average, long one? Sure, it's a spurious question but it does illustrate the point that it's quality that matters, not quantity. If a game is good enough to begin with then it's worth replaying, thus reinforcing whatever your own personal notions of value for money may be.

Of course, it's true that games are getting shorter. In terms of narrative driven, single-player games where there is a definite end - ie. the majority of games - this is certainly the case. Development costs have outstripped Moore's Law in recent years. It's simply prohibitively expensive to generate sufficient content of consistent



## 57 Game of the Month America's Army 2

quality to match the length of yesteryear's games. Doom 3 will be significantly shorter than Doom 2 because it takes significantly longer to create a similar moment of gameplay.

Also bear in mind, studies show most gamers don't finish most games. If they're shorter, then logically more people will finish them. From a publisher's point of view, shorter games make sense, too: why waste development resources on the final parts of a game virtually none of the players will actually see?

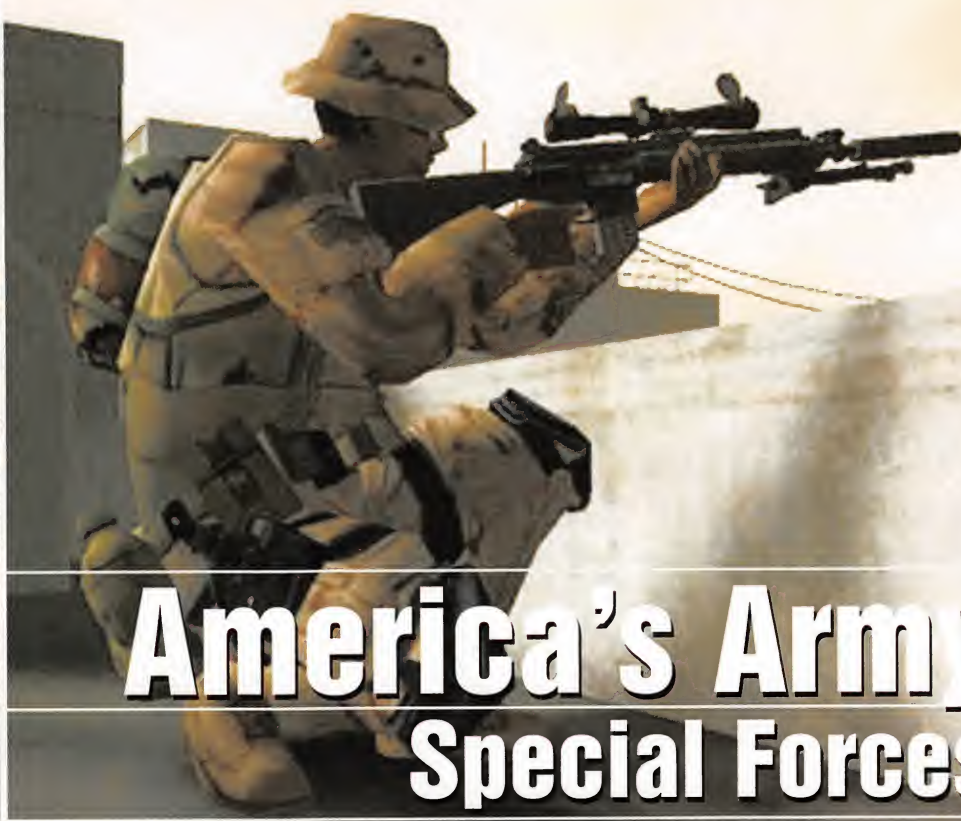
So instead of moaning about the lack of games this month, maybe you should dig out that old favourite and give it another bash from the beginning...

David Wildgoose  
Editor

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GOLD AWARD	HIGH DISTINCTION	DISTINCTION	CREDIT	PASS	FAIL
The ultimate accolade. A game that receives a Gold Award is an essential purchase, and the only excuse for not owning it is either not having a powerful enough PC, or not having a PC at all. Or arms. It represents a new direction in gaming, a new benchmark against which all others will be measured. It defines its genre, or creates a new one. It is gaming. You must own it.	This is the finest in gaming. A fresh concept, a perfect execution, a meaningful extension to a tried and tested format, one or all of these are required for this score. We strongly recommend the purchase of each High Distinction game, but extremely fussy gamers may want to skip those HD games that don't also receive Gold Awards.	An intriguing new concept or a bold new direction that manages to pull its new trick off with a reasonable degree of flair. You will be impressed, at either the graphics, the gameplay or some other new element that you may not have encountered before. Or perhaps this is a familiar gaming concept, but one executed so well it's almost - but not quite - an essential purchase.	Solid, playable, largely bug-free, entertaining and maybe even a bit unexpected, these are the hallmarks of a game of Credit. You may have seen it all before, but you won't mind, because a Credit game does what it says on the box - it plays well and it keeps you hooked. An essential purchase? Not necessarily, but worth consideration.	A game that receives a pass is playable, but its concept may be flawed, its extras may be lacking or its graphical enhancements may have fallen off somewhere in a lengthy bug-fixing process. And bugs there may be, although in the end the game will, as we say, work. Purchase if you're curious, but discerning gamers will probably look for something more substantial.	There are more than 5000 games released each year. Some are gems. Some are merely unremarkable. Others are nothing more than a shameless grab for cash. Graphics will be rudimentary and gameplay will be worse. If you see someone considering a game that has failed, gently take them by the elbow and hurl them out of the shop. It's your duty as a good citizen.
90+	85-100	75-84	65-74	50-64	0-49





# America's Army Special Forces

Bennett Ring is an army of one

Developer: The American Army Publisher: The American Army Distributor: The American Army Price: FREE, FREE & FREE! Rating: N/A Available: Now

**D**eveloped at a cool US\$7m by the US government, America's Army is a PR move that tries to suggest "Yes, we burnt entire villages in the Vietnam war, and we've invaded a couple of Middle Eastern countries recently, but we give away free games, so we must be the good guys, right?". If they thought it would convince people to join the army, it's doubtful they've succeeded. After playing this game for a few minutes, it's immediately apparent just how easy it is to end up with a smoking hole in the forehead if you're a soldier on the modern battlefield.

If your online nickname is along the lines of "Jh0nnY R4MB0", "RU5H K1LL4" or "BuNnY H0PP3r", this might not be the game for you. Counter-Strike this most definitely is not. Before you can even start playing the game online, you'll have to complete several training sessions offline. Several of these courses are necessary to unlock specialty roles, such as sniping or being a medic, and they're not exactly easy. Once you've qualified, you'll be allowed to play online, but the testing doesn't stop there. Your online performance is tracked and funnelled into your 'honour' rating. The higher the rating, the more likely you'll be the sole

## ONE EYED WARRIORS

Regardless of whether you choose the attacking or defending team (all gameplay types are objective based), you'll always play the game from the perspective of an American soldier, while the opposing team will always look like generic terrorist types. We guess the US Army didn't want to spend seven million big ones on a game that could help players empathise with the nasty freedom fighter types.

It also drops as you move further away from your leader, encouraging team mates to stick together. The leader is also blessed with the magical ability to set objective waypoints for the team, as well as specialised radio commands designed to get your team to move their collective ass.

Don't expect a wealth of obscure weaponry in AA - the number of rifles you can select from are limited to the four or five weapons used by real American infantry troops. Thankfully these are modelled to a degree of precision unheard of in a computer game; bullet drop, bullet



rock solid, with PunkBuster support making it relatively cheat free.

The latest version of the game introduces the Special Forces class, and these guys know their shit. Not everybody is cut out to be a SF trooper, so you'll have to pass several difficult training courses, as well as reach a certain honour rating, to make the grade. It's worth it though, as these guys have a range of cool weapon mods such as bipods, flare launchers and Acog reflex sights.

While it's hard to fault this game, it's definitely a niche title. This is due to the slow style of play, with each round lasting ten minutes. Swallow a bullet and you'll be forced to sit it out until the end of the round. Stick with it though, and play a methodical, patient approach, and chances are you'll still be alive by the end of the round.

If you're interested in what it's really like to be a soldier, but don't particularly want to kill real people, do the free world a favour and check out this brilliant game. And with the introduction of drivable vehicles sometime in the near future, it's only going to get better.

Bennett Ring

## SYSTEM

### NEED

1.3GHz CPU  
256MB RAM  
3D video card with  
64MB memory and  
hardware T&L  
56k modem

### WANT

2GHz CPU  
512MB RAM  
Radeon 9600XT  
Broadband  
connection

### MULTIPLAYER

Yes

### ONLINE

[www.americanarmy.com](http://www.americanarmy.com)

If this sounds like your kind of shooter, here's where you can get it. For FREE!!!!

## RATING



### OVERALL

It's not for everybody due to the slow pace, but if you want realism, it doesn't get any better.

90

## time your view down the iron sights to coincide with the pause in your breathing

sniper/medic/leader in your team. Team killers need not apply.

Like the real army, AA encourages teamwork, and it does so by several novel methods. The most obvious of these is an accuracy gauge, which isn't just affected by whether you're crouching, prone, or running headlong through a hail of bullets.

ricochet, bullet penetration and gun jams are all modelled perfectly. You'll even need to time your view down the iron sights to coincide with the pause in your breathing to hit targets at long range. It doesn't get much more realistic than this.

Based on the Unreal engine, AA is a stunner of a game, and the netcode is also



# Legacy of Kain Defiance

For when too many plot twists are barely enough

Open up and say Aaaaah!



Developer: Crystal Dynamics ■ Publisher: Eidos ■ Distributor: Atari ■ Price: \$89.95 ■ Rating: MA15+ ■ Available: Now

## SYSTEM

### NEED

P4-1GHz  
256MB RAM  
64MB Video card  
1GB HDD

### WANT

P4-3GHz  
512MB RAM  
GeForceFX  
Gamepad

### MULTIPLAYER

No

### ONLINE

www.boxheadfilms.com.au

This has absolutely nothing to do with vampires, but Kain Crombie's films rock

## RATING



### OVERALL

If you're a Kain fanboy, add ten points

71

**T**here are three kinds of vampire franchises. Those based on Bram Stoker's Dracula, those based on the Anne Rice books, and crap ones. So to which does the seemingly never ending Legacy of Kain belong? Let me give you a clue: it ain't based on Dracula, and it wasn't written by Anne Rice. Now I come to think of it, Anne Rice vampire franchises are pretty crap too.

## Type 3

Respect where respect is due, however. LOK is an ancient and time-honoured gaming icon, and this is the fifth game in the series. Story? Well, it's complicated. And long. And it involves immortal undead gods. Sort of. You know the kind of thing, various eldritch races vying for control of the world, angels with their wings ripped off, the whole bit.

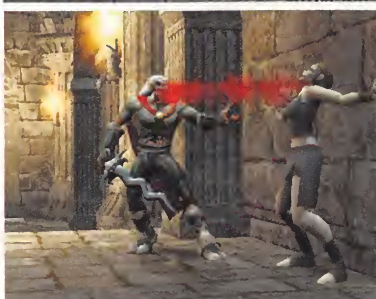
In terms of actual game, Defiance is a keyhunting/puzzling 3D platform-jumping combat game. The player takes the role of Kain - the huge vampire lord - and Raziel - the guy who got his wings ripped off - in alternating chapters. The two different characters offer different gameplay focuses. Kain is heavily into whaling on his enemies with an enormous sword, while Raziel gets down and dirty with the aforementioned keyhunting and puzzles.

So, assuming you're not a die-hard LOK fan in it for the continuation of the admittedly fairly interesting story (since if you were, you would have already bought this game on PS2, Xbox and imported a PC version), is there any reason to invest your mind in Defiance's complicated plot and solid but largely uninspired gameplay?

Well, the combat system is pretty good. You'll need a gamepad to make the most of the myriad of combinations though. Kain

## FEED ME!

Sure evidence that I'm getting soft in my old age: early on the first level, Kain comes across a young woman bolted and chained to a wall. She begs for her life. She grovels for mercy. She's unarmed, bound, defenceless, weeping. Kain? He just makes a quip about fast food and rips her throat out. Or rather, encourages the player to press a button to rip her throat out. I dunno, for some reason I found the whole idea of brutally eviscerating a bound and defenceless woman vaguely offensive. Clearly I've sold out to the values-neutral deep green politically correct public school system.



now has telekinesis moves, which are very funky, since they allow him to fling his opponents against spikes on the walls. The requisite Big Sword also gets increasingly more powerful as the game progresses. There's an automatic lock system which makes targeting enemies in a thirdperson 3D space easier, although sometimes the game will lock on to an enemy outside the room, which can make for awkward moments in fraught melees.

## 0 Negative

Speaking of awkward, Defiance uses a thirdperson camera system which, like so many others, doesn't really work all the time. As the player progresses through levels, the camera will automatically switch to a funky new cinematic angle, which tends to mess with your understanding of the control system for the first hour or so of play. Also, attempting to jump across some gaps is made unnecessarily difficult by the game deciding you need to move diagonally even though the camera angle makes the jump look side-to-side.

Ultimately, I felt no real need to get into the Legacy of Kain universe on the strength of this game. Fans of the series will be fodder to its charms, naturally, since the game offers everything they've come to expect plus groovy new enhancements that fanboys can gush about to their uncomprehending mates.

For the rest of us though, Defiance is just another thirdperson beat-em-and-slash-em-up with a vampire theme and a complicated story. Get it if you buy into all that dark elder blood god with a vengeance on the midnight of the millennium bat ghost spectral realm dude thing. Still, at least it's better than Queen of the Damned.

Anthony Fordham



# Neverwinter Nights Hordes of the Underdark

Neverwinter Nights gets epic

Developer: Bioware ■ Publisher: Atari ■ Distributor: Atari ■ Price: \$69.95 ■ Rating: M 15+ ■ Available: Now

**A**lthough many fans of roleplaying games may have found the core module of Neverwinter Nights to be lacking, there were few who were unimpressed by the followup expansion pack/module, Shadows of Undrentide, in which the player faced off against an insane medusa and the power of an ancient flying city. Even more important than the story was the fact that the expansion introduced players to one of the greatest fantasy sidekicks of all time, the lovable kobold bard, Deekin. Anyone who liked either Undrentide or Deekin will be doubly pleased with Bioware's latest expansion pack as the story not only eclipses that of the previous game, it also features the return of Deekin as well as the introduction of some great new NPCs, interesting quests, skills, feats, spells, prestige classes and the ability to progress up to 40th level.

Set in and under the city of Waterdeep, Hordes of the Underdark leads the player on an epic adventure through the Underdark battling against a mad wizard, Drow, Beholders and Mind Flayers, eventually leading all the way to the ninth layer of hell. The initial reason for the journey is inconsequential, but the unfolding plot will be sure to keep you entertained – there's enough twists,

## THREE'S A CROWD

One thing sure to appease some of the series' detractors is the fact that Hordes of the Underdark allows players to have two henchmen instead of the single henchman as seen in the other games in the series. Don't be discouraged if you don't get to choose two companions at the outset – you get to choose the second in Act II, so hang in there champ. Whilst some players will still complain that there are not enough non-player characters to manage the fact remains that Neverwinter Nights is a much more personal game than Baldur's Gate II, a game NWN is often unfairly compared to.

turns, double crosses and about faces to keep most everyone happy.

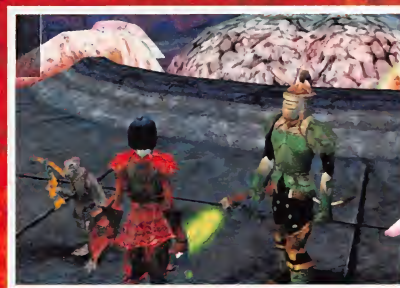
## Genuinely epic

Plot aside, Underdark is a departure from previous Neverwinter outings as it is the first D&D based game to include the epic rule set, allowing characters to progress all the way up to 40th level (although you'll most likely only make it to 28th or 29th by the end of the module). At higher levels you

have access to epic feats that are capable of transforming any character into a terrifying force of nature. These include the ability to get instant kills with criticals, take no penalty from casting spells in the middle of combat, shapechange into an ancient dragon or even summon a greater demon as a companion. While there isn't much chance to play around with too many of these feats in the single player game they definitely have to potential to make online play very interesting to say the least. As with the last expansion, Hordes of the Underdark also features a few new tilesets for the modding community so we can soon expect to see some frozen wastelands and hellish environments available to download.

Whilst the soundtrack sounds a little on the generic high fantasy side it still gets the job done admirably and the voice acting is excellent as usual. Special mention should go to some of the incidental NPC scripting – hearing the stoic Valen humming Deekin's doom song under his breath and then complaining to the kobold bard is priceless. Bioware has included a number of engine tweaks in the expansion pack but unfortunately the Aurora engine is beginning to look a little long in the tooth.

Daniel Wilks



Have you seen a kobold bard, by any chance?



## SYSTEM

### NEED

PIII 800  
256Mb RAM  
32Mb DX 8.1 video card  
1.5Gb HDD  
Neverwinter Nights

### WANT

P4 1.3GHz  
512Mb RAM  
64Mb DX 8.1 video card  
1.5Gb HDD  
Neverwinter Nights + Undrentide

### MULTIPLAYER

Yes

### ONLINE

[www.ladiesneverwintnights.com/deekin\\_watch.htm](http://www.ladiesneverwintnights.com/deekin_watch.htm)  
Everybody loves Deekin.

## RATING



### OVERALL

Another excellent expansion pack from the master's at Bioware

86



The cheesy humour doesn't grate as much as this caption.



# Contract J.A.C.K.

Another day, another acronym

Developer: Monolith ■ Publisher: Sierra ■ Distributor: Vivendi Universal ■ Price: \$49.95 ■ Rating: MA 15+ ■ Available: Now

## SYSTEM

### NEED

PIII 733MHz or equivalent CPU  
256Mb RAM  
32Mb 3D Video Card  
2.0Gb HDD

### WANT

P4 1.6GHz CPU or equivalent  
512Mb RAM  
64Mb 3D Video Card  
2.0Gb HDD

### MULTIPLAYER

Yes

### ONLINE

www.gogon.com  
Another reminder

**N**o One Lives Forever and its sequel, A Spy in H.A.R.M.S. Way, are widely considered to be classic games in the FPS genre. For good reason, too - both games features brilliant level design, genuine laugh out loud humour, great graphics, varied gameplay and a wonderfully sassy main character in the form of Cate Archer.

Contract J.A.C.K. (Just Another Contract Killer), the official prequel to the franchise tells the story of a nameless contract killer (known as Jack to his friends and employers) who has been tagged by H.A.R.M. as a potential agent for evil. After his skills are tested in a gauntlet of gaudily dressed henchmen and traps (the henchmen are gaudily dressed, the traps are kind of plain), Jack is launched on a mission that sees him traveling from the icy reaches of the Czech Republic to the even icier depths of

space in a goofy story that is vintage NOLF fare.

## Seriously suave

Unlike the full priced games in the series, Contract J.A.C.K. does not rely on a mix of stealth and gadgets to drive the gameplay, instead opting for a far more conventional run and gun approach, throwing hordes of dumb henchmen at the suave killer at every turn in a manner not too dissimilar from Serious Sam. Overall the game suffers from this approach - the strength of the series thus far has been the subtle approach to level design and play. Nonetheless the infectious humour, such as an evil Italian mastermind's obsession with Jack's testicles and the fondling thereof, gives the game an undeniably cheesy charm. Unfortunately the constant barrage of enemies can become a bit tiring after the third or forth level.

There are the occasional vehicle missions (such as escaping from a Czech facility with an experimental snowmobile) but these come too few and far between to really break up the bulk of the killing. Of course for \$50 you can't really complain too much if some corners were cut. At any rate, there are worse ways to spend a couple of hours than having the occasional chuckle whilst moving down ranks upon ranks of jump-

## WHERE'S CATE?

With the recent spate of games being optioned for movies, especially by the antichrist himself, Uwe Boll, it's quite a wonder that we haven't heard anything about a No One Lives Forever movie. Out of all the games that have been optioned so far it is far and away the most obvious choice - the plot is great comedy, the setting will fit in well with a post Austin Powers world and any number of beautiful British actresses would be perfect as Cate Archer (Kate Beckinsale immediately springs to mind, grrrrrrrr!).

sued villains. Once you get sick of the single player game you can also jump online and give multiplayer a shot. To be perfectly honest it's nothing special but once again, what can you expect from a budget title?

## Efficient engine

The Jupiter engine is still a thing of beauty capable of pushing out some great looking character models, terrain and weapon effects without requiring you to have an absolute beast of a PC. The design of J.A.C.K. is very reminiscent of NOLF yet somewhat grittier and slightly clunkier. Whether this was a conscious design decision or a cost cutting measure may never be known. At any rate, Contract J.A.C.K. features some great animations and will frequently throw a ton of particles at you with nary a bump in framerate. As can be expected from a game in the NOLF series, the soundtrack and voice acting are absolutely top notch.

Daniel Wilks

## RATING



### OVERALL

It's not going to be remembered as fondly as NOLF but JACK is a fun diversion.

71







# Gladiator Sword of Vengeance

Released by Acclaim so you know it has fatalities

Developer: Acclaim ■ Publisher: Acclaim ■ Distributor: Acclaim ■ Price: \$89.95 ■ Rating: MA 15+ ■ Available: Now

**A** lthough Mortal Kombat was far from being a great game due to its lacklustre fighting mechanics and unbalanced characters, it did garner quite a bit of fame due to its intricate and gory fatalities. If you're one of the three people who have never seen Mortal Kombat in action, once players had beaten their opponent to a pulp they could input a convoluted series of button presses and joystick jiggles to trigger a gory killing move – the effects ranging from tearing out the opponent's spine to blowing them up with grenades, depending on which character had been carrying out the killing. The notoriety and desire to see all of the fatalities in the game made it far

## BLOOPER REEL

If you do decide to give *Gladiator* a shot, do yourself a favour and check out the credits. Whilst there's nothing special about looking at a list of slowly scrolling names that mean little to anyone but their parents, the developer has rendered a gag-reel to go along side it. Much like in Pixar films, the gag reel shows a number of outtakes and bloopers including line dancing skeletons, accidental death due to a Cyclops' lack of depth perception and a very funny, "Thrax: The Early Years" segment.

## the majority of the game is spent running through corridors hacking the crap out of monsters

more of a success that it had any right to be and spawned countless sequels, mostly quite bad but some, like last year's *Deadly Alliance* were quite good.

By now you're probably wondering if you're reading *Hyper* instead of *PCPP* and what all of this has to do with *Gladiator: Sword of Vengeance*. The answer is quite simple – *Gladiator* takes a similar approach to gaming as *Mortal Kombat*

(also released by Acclaim – coincidence?), combining fairly dull and repetitive gameplay with gory fatalities to try and gain some attention. The difference between the two games is that *Gladiator* has made everything so easy you'll be bored in 20 minutes.

Players take the role of Thrax, the greatest gladiator to have ever killed a defenceless slave and favourite of a now

dead Emperor. The new Emperor is insane and it's up to you to show him the error of his ways by traveling through various mythological realms and beating stuff up. That's about it. Use your two attack buttons to mash your way through hordes of enemies, occasionally hitting the context sensitive button to dodge, jump or trigger a fatality. To stop players from simply mashing their way through the game, the developer has instituted what is called the battle meter – string a number of attacks together and your subsequent attacks become more powerful. Unfortunately, simple mashing actually can fill the meter just as fast as trying to pull off combo attacks. Whilst there is a small amount of exploration based gameplay as the player tries to find new weapons, powerups or trinkets, the majority of the game is spent running through corridors hacking the crap out of monsters and pulling off one button fatalities that quickly become dull.

It's a pity that the gameplay of *Gladiator* is so uninspired as the game looks fantastic and sounds pretty good as well. All of the characters/monsters are well animated and the action takes place one some wonderfully rendered backgrounds. Shame the rest of it is so utterly average.

Daniel Wilks

## SYSTEM

### NEED

P4 1.0GHz CPU or equivalent  
256Mb RAM  
GeForce 3 or equivalent graphics card  
1.3Gb HDD

### WANT

P4 2.0GHz CPU or equivalent  
512Mb RAM  
Radeon 9700 or equivalent graphics card  
1.3Gb HDD

### MULTIPLAYER

No

### ONLINE

www.soccernet.com  
More fun than this!

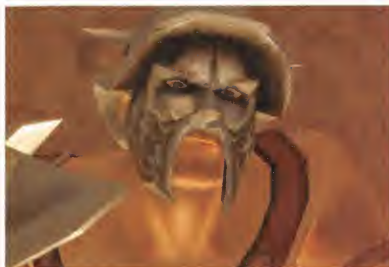
## RATING



### OVERALL

This game has nothing to do with the Russell Crowe movie.

61





# Black Hawk Down Team Sabre

From Somalia to Colombia to kill

Developer: Ritual Entertainment ■ Publisher: Novalogic ■ Distributor: Electronic Arts ■ Price: \$49.95 ■ Rating: MA15+ ■ Available: Now

## SYSTEM

### NEED

PIII 733MHz  
32Mb Video  
256 Mb RAM  
750Mb HD  
Original BHD game

### WANT

PIV/AMD 2GHz+  
512 Mb RAM  
128Mb Video

### MULTIPLAYER

Yes

### ONLINE

www.sabre.com  
We bet it's a Star Wars  
site or something

## RATING



### OVERALL

A fun expansion pack if  
all you want is some  
basic, arcade-style run  
n gun action.

68

**W**ell men, with the situation in Somalia all wrapped up - Oyl No sniggering up the back there! - I said with the situation in Somalia ALL WRAPPED UP we now find ourselves back chasing the old enemy. That's right people, while our backs were turned those slimy acne scarred Hollywood drug villains have been breeding like flies all over Colombia! It's up to us to save the lives of all those unfortunate Wall Street yuppies and aging rock legends who are at this very moment helplessly succumbing to the irresistible hypnotic pull of their local coke dealer.

Black Hawk Down: Team Sabre as the name suggests is the long awaited sequel to what was a very successful release in the US, not so successful here. The original game was basically an evolution of Novalogic's Delta Force series, taking it into more mainstream territory compared to the sim-like earlier titles. Team Sabre goes even further by favouring over the top action rather than realistic tactics and stealth. In a way this suits the single player game more as the AI in Novalogic's titles has always been suspect, too suspect for a realistic single player game.

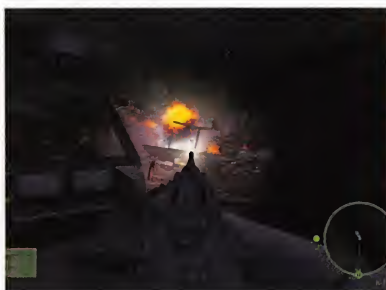
## Memory test

As in BHD the single player missions are basically an exercise in trial and error,



move along until you get killed by a hidden bad guy, take note of bad guy's position, reload, kill bad guy, move along until you get killed by the next bad guy, rinse and repeat. The limited mission boundaries in Team Sabre make it impossible to outflank or out-manoeuvre your opponents so you're forced to play the game as though you are playing a standard shooter, not a military sim.

The bad guy's AI is so bad that if you shoot one of two guys standing together, the second one will just look around a bit, kick the dead guys corpse and maybe go through his pockets for any spare change. The only real threat comes from enemies with .50 cal guns and RPG launchers,



## SCOPE DRIFT

The almost total lack of scope drift (that's when the sight moves around to simulate it's telescopic properties) has always given snipers too much power in this game and the new semi-auto PSG1 makes them even deadlier. This has the effect of making some single player missions a breeze and unbalancing multiplayer maps where there are long fields of view, which is a lot of them.

simply because of the area effect of those weapons. The new PSG1 sniper rifle makes things even worse as anyone who has played BHD will know, the last thing this game needed was an even better sniper rifle.

## Re-skinning

Team Sabre introduces British SAS troops to the game (no doubt as a reaction to Tony Blair's support for the war in Iraq) but unfortunately no Australian forces. The problem with these guys is that they only amount to a new skin! They don't have any unique weapons or abilities which would have added a bit of spice to the multiplayer side of the game.

Aussie gamers still demand a good single player workout from any action game and this has always been a weakness of this series from Novalogic. The online game is where you'll see Team Sabre at its best, however the scarcity of local servers is still a drawback, as is the new sniper rifle! The new multiplayer maps are a good deal better than those in BHD so if you enjoyed playing that online Team Sabre is worth a look.

George Soropos





A wooden bridge. Ideal for some zippo action.

# Vietcong Fist Alpha

It's time to fist the Vietnamese once again.

Developer: Pterodon ■ Publisher: Gathering ■ Distributor: Take2 Australia ■ Price: \$49.95 ■ Rating: MA 15+ ■ Available: Now

**W**hen are we ever going to get a Vietnam War game that allows the player to use the humble Zippo lighter as one of the primary tools of destruction and carnage? The original Vietcong game didn't mind using the odd racial slur, yet shied away from this awesome kerosene-powered village eradicator, so we were more than a little anxious to see if it would finally make an appearance in the first Vietcong expansion pack, Fist Alpha. Sadly there wasn't to be any Zippo lovin', but many of the qualities that made the original such an atmospheric game have made a reappearance, not to mention many of the traits that made this a "love it or hate it" kind of game.

Just like the first game, you play the part of a Special Forces soldier, leading your bunch of misfits through the steamy swamps and jungles of Vietnam. There are

a total of seven new missions in Fist Alpha, most of which revolve around the establishment of a new base deep in VC territory. You'll probably get through these levels in around seven hours, provided you use the quick save feature in the most appropriate places. Once again the majority of the levels take place in dense

## the pacing builds up the suspense before blowing you away in a fresh enemy attack

vegetation, but this time around the levels seem a little more open. While this makes the game prettier than the first, it also makes it more demanding on your hardware, with occasionally slow frame rates even on beefier machines. And with the likes of Far Cry just around the corner, the engine is starting to look a little dated.

If you thought the first game was hard, be prepared for one of the more infuriatingly difficult gaming experiences known to gamerkind. The problem lies in the enemy AI. These guys must be stocking up on the super rice, as they

have superior shooting skills than your troops, and have the uncanny ability to see through trees and foliage. Yet your troops seem dumber than a gibbon on tranquilisers, with poor path finding skills and a propensity to stumble blindly into the nearest available booby trap. It only takes a couple of shots to take you down,

and if any of your troops bite a bullet it's mission over. Time and time again we'd be shot dead by a guy hiding behind several layers of foliage, forcing us to walk away from the PC in disgust.

If you can overlook this issue, and many of you won't be able to, there is a lot to like about this expansion pack. Like the original, it oozes atmosphere, thanks largely to the excellent soundtrack, sound effects and graphics, and the pacing of the game is very well structured, helping to build up the suspense before blowing you away in a fresh enemy attack. Multiplayer has been revamped, with eight new maps and the inclusion of a map editor, and the new weapons that are included in the single player game are all available for online carnage, even if you're playing folk who didn't buy the expansion pack.

Yet the problem with the super AI makes this game hard to recommend, and it's a problem that pops its head up all too often. As a result, Fist Alpha is a game that only die-hard Vietcong fans will enjoy. Oh well, at least we have seven gazillion Vietnam themed games coming out over the course of this year to satisfy the rest of us.



### STICK AROUND

Nothing says "I wanna kill you up close and personal" like a bayonet to the chest. Fist Alpha allows you to use these sharp instruments of surgical delight, but things aren't all roses. You see, by the time you've whipped out your shiny blade of pain and tried to sneak up on the enemy, the VC will most likely have already detected you and emptied your brains out onto the jungle floor. It's slightly more useful in multiplayer, but is really more of a gimmick than a must have weapon.

### SYSTEM

#### NEED

Original Vietcong  
500Mhz CPU  
256MB RAM  
1.8GB HD space  
16MB DX8.1 video card  
DX8.1 sound card

#### WANT

2GHz CPU  
512MB RAM  
Radeon 9600 or better  
EAX compatible sound card

#### MULTIPLAYER

64 players

#### ONLINE

[www.zippo.com](http://www.zippo.com)  
To the untrained eye, these are only good for lighting cigarettes.

### RATING



#### OVERALL

Wads of atmosphere spoiled by cheap AI

# 65

Bennett Ring



# TECH IN REVIEW

**W**ell, the first big tech release of the year is upon us, and what a fizzer it turned out to be. Prescott, the latest version of Intel's Pentium 4 CPU, hit our labs amongst a frenzy of overclocking expectations, but soon departed with more of a Faaaarp than a Whoosh. Asher's review on page 76, where he pitted it against AMD's mighty Athlon 64 3400+, shows exactly why this CPU is currently such a disappointment. By the way, we compared the A64 3400+ with the 3.2GHz Prescott as these were the flagship processors from both AMD and Intel at the time of the article.

Once you've read all about Asher's Prescott blues, you'll probably appreciate our review of the Mach II extreme cooling solution. Those of you looking to overclock a Prescott more than a microburp are going to need one of these babies, but can anybody actually afford to pay almost one and a half grand for a cooling kit?

If you're interested in reading a lame joke about the size of my penis, you might like to check out this month's PowerTest. It's also got some pretty handy information about eleven Small Form Factor PCs, for those of you with a fetish for itty bitty PCs.

Our Beast got a little bit beastlier (for those of you on the forums who don't think we listen to you, nyah nyah!), with a couple of whiz bang Raptor drives. Putting it further out of reach for the average Australian - but you wanted it, so you got it! Speaking of Raptors, (no, not the human eating ones seen in Jurassic Park) Stu had a look at the latest version of this Warp Speed 9 drive, and yes, it's still bloody fast.



## 65 Powertest

The Incredible Shrinking PC

Now, it's time to sit back, relax, and enjoy the tech fest that is PC PowerPlay's hardware section!

**Bennett Ring**  
Deputy Editor,  
[bennett@next.com.au](mailto:bennett@next.com.au)

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### HOW WE TESTED

For an in-depth explanation of how we test video cards, CPUs, and motherboards head to our PowerTools section on page 104. You'll also see a list of hardware that makes up the PCPP testbenches, which are used for the testing of the majority of our hardware.

Where possible we use benchmarks based on real world games to test hardware performance; this way we know for sure which component will give you the best gaming experience. We don't love hardware for hardware's sake - it's all about using this hardware to make your

entertainment even more, well, entertaining. We also try to compare the review product with the current "best of class" piece of hardware, so at the end of the day you'll know exactly which product offers you the best bang for buck.

For a product to earn a Power Award, price be damned, we're just looking at how this product performs. If there's nothing better, that we've seen at least, it'll get the Power Award. However, if a product offers a great level of performance or features for a very reasonable price, it'll get the Value Award. Simple, really.





# THE INCREDIBLE SHRINKING PC



Bennett Ring likes to fiddle with small boxes...

**G**ood things come in small packages" isn't just a line that I used before hitting the hay with my girlfriend for the first time. It also applies to computers, and is actually believable when used in this instance. Thanks to a little company by the name of Shuttle, who used to be better known for its dodgy budget motherboards, the shoebox PC (aka mini-PC) is now storming into lounge rooms and gaming dens across the world.

The geeky term for a miniature PC is a SFF PC, which stands for Small Form Factor, and they've got

Finally, burglars also seem to appreciate the ease with which one of these miniature cases can slip into a backpack.

However, with all good things come things that will inspire you to introduce your wrists to broken glass, or something like that, and SFF PCs aren't without their problems. They tend to have a very limited number of PCI slots, usually only one in most cases, and they can also be quite cluttered when it comes to installing larger video cards. You'll also usually be limited to one hard drive and one optical

knew it, we had a list of over twenty different SFF PCs to start chasing. Then we realised that half of these were only available in lower Patagonia - by the time we'd eliminated these, we'd arrived at a nice round figure of eleven machines to test, from some of the more reputable brands in the market.

When it came time to test these units, there were several factors that influenced the overall score. Performance is obviously important, so we gave each machine a spanking with our CPU/motherboard PowerTools. Next up was the ease of installation, as trying to jam a CPU, HSF, RAM, video card, hard drive, and optical drive into something not much bigger than your lunchbox can be quite a trying, not to mention painful, affair. More than once we managed to spill a little blood into the interior of a machine being built; luckily this congealed rather quickly due to the heat, and was promptly licked off.

The feature list of each machine is very important, as the lack of PCI slots means that you'll need a large range of features built into the PC's tiny motherboard. Please note that every machine ships with a case, motherboard, cables and PSU. The final consideration involved the price.

Each machine was installed with our standard test bench components (RADEON 9700 PRO, 2 x 256MB sticks of DDR-400, Pentium 4 2.6C

## INTEGRATED EVERYTHING

Even though every machine in the PowerTest has an AGP port, they also all included onboard video (with the exception of the Shuttle SB75G2, which has no integrated graphics). In the case of the Intel machines, the Intel Extreme Graphics 2 chipset is used, while the AMD boxes use the nForce2 IGP chipset, which is roughly equivalent to the GeForce MX440. Both of which totally suck for gaming, but thankfully are more than adequate for general media viewing purposes.

or Athlon XP 2600+), although we did have to resort to IDE drives as several of the machines were lacking SATA ports. Thanks to Seagate ([www.seagate.com.au](http://www.seagate.com.au)) for providing a pair of Barracuda 7200.7 160GB IDE drives at short notice. Optimal BIOS defaults were used, with the memory operating at the By Spd setting. The hardware was topped off with a fresh install of Windows XP Pro, DX9.0b, ATI Catalyst 4.1 drivers, as well as the drivers for each integrated device that shipped with the PC (such as Ethernet, modem, and onboard audio).

Without further ado, let's take a look-see at some of these undeniably cute, yet undeniably powerful, PCs. Did I really just say these machines were cute? Sheesh, time to stop watching Queer Eye...

## These micro machines of PC bliss are also proving to be quite popular amongst the LAN crowd

one major advantage over their larger kin. Size, or a lack of it, to be precise. We're sure SFF PCs must be huge in the land of human tuna, aka Japan, as the average SFF PC is around 50% smaller than a PC tower case. This also makes them handy as a basis for a lounge room based media PC, where you'd rather have a PC that looks like a Hi Fi unit than a geek monolith. These micro machines of PC bliss are also proving to be quite popular amongst the LAN crowd, as they don't require a dose of steroids and the hiring of several mates to move around.

drive, and these things can reach furnace-like temperatures due to the piling up of hot electronic doohickys on top of each other. Finally, they're also a little more expensive than a standard case/mobo/PSU combination, but prices have dropped to the point where you won't have to stage a life insurance scam to pay for one.

## The age of SFF is nigh

We didn't realise just how popular SFF PCs have become until it came time to track down some review samples for this review. Before we



## ABIT DigiDice

• Price: \$440 • Distributor: Altech [www.altech.com.au](http://www.altech.com.au) (02) 9735 5655 • URL: ABIT [www.abit.com.tw](http://www.abit.com.tw)

**S**omebody must have forgotten to tell ABIT to make their mini-PC small, as this is one of the largest machines in the entire roundup. Not a problem, we thought, it's still not exactly huge and it should be one of the few SFF PCs with multiple PCI slots. Unfortunately it appears that the same guy who forgot to make this machine small also forgot to utilise all that extra space. Fire him, Mr ABIT! There's only a single PCI slot, as well as the standard AGP slot. Oh well, at least there's room for two 3.5" drives as well as 2 x 5.25" drives, a rarity in these confined cases. Courtesy of the 865G chipset used by the motherboard, the DigiDice includes onboard video, 2 x ATA and 2 x SATA ports, 10/100 Ethernet, 2 x memory slots (2GB max), as well as onboard sound. There's also a handy 6 in 1 card reader on the front for the digital photographers out there.

Due to the large size of this PC, installation was relatively pain free, but it did require many more steps to get the machine from barebones to beefed up than the other PCs.

A couple of features help this unit stand out from the crowd, the most obvious being the big knob on the front. This isn't just a volume knob, as it also functions as a noob overclocking device, with one of five different pre-set overclocking

levels, in 5% increments up to 25%. There is also a small oil well on the rear of the unit, to be filled with scented oils, helping to remove the stench of your geek pit. Weird. A carry case is included for the LAN freaks, while a nice remote control makes this the basis for a great media box.

Performance was exceptional, coming first in many of the benchmarks, and it's also a relatively quiet box when in use. Combine these many features with a great price, and it's easy to overlook the larger size of this SFF PC.

### SPECIFICATIONS

- Dimensions: 306mm (w) x 258mm (d) x 206mm (h)
- Intel 865G chipset
- 1 x VGA output
- 1 x 10/100 Ethernet
- 2 x ATA100 ports
- 1 x IEEE 1394 connector
- 4 x USB 2.0 connector
- 5.1 channel AC97 (Speaker, Line-out, Line-in, Mic-in, Center/Sub woofer and SPDIF Out connector)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

87



## AOpen XC Cube EZ65

• Price: \$630 • Distributor: Bluechip Infotech [www.bluechipit.com.au](http://www.bluechipit.com.au) 1800 803 802 • URL: AOpen <http://solution.aopen.com.tw/xc/>

**L**et it be said that AOpen know how to make a sexy SFF PC. Sure, there's no glowy LCD screen on the front to show you how close the CPU is to frying, nor to display a garish graphic equaliser. In fact, it's a very simple looking case, but there's something clean about it that makes it instantly appealing.

Peering into its belly is also a very pleasant experience, with one of the most clutter free interiors we've seen. There's enough room for three drives (1 x 5.25" and 2 x 3.5"), and thanks to this spacious interior and the comprehensive install guide, even a Mac user should be able to build a machine based around this chassis without imploding from frustration.

Performance levels were up to scratch, taking out the second fastest score in JKII and being up there with the best of them in the other tests. It's not a noisy PC by any means, but it's also not the silent PC that the manufacturers

claim it is. It all looks good until you see the price, and compare its feature list to the cheaper SFF PCs. At a tad over six hundred big ones, where are the mystical oil burners, carry bags, wireless network connections and assorted other frilly bits? About the only feature worthy of getting excited about is the inclusion of Gigabit Ethernet LAN, and that's it.

If this barebone machine was

priced for a hundred bucks or so cheaper, we wouldn't hesitate to recommend it, as we can't fault the build quality or its eye candy rating. However, at its current price we can't help but feel that it's a tad expensive, especially considering it's missing many of the features of the cheaper competitors.

### SPECIFICATIONS

- Dimensions: 200mm (w) x 334mm (d) x 191mm (h)
- Intel 865G chipset
- 1 x VGA output
- 1 x Gigabit Ethernet port
- 2 x ATA100 ports
- 2 x SATA ports
- 4 x USB 2.0 connectors
- 3 x IEEE1394 connectors
- 5.1 channel audio (Speaker, Line-out, Line-in, Mic-in, Center/Sub woofer and SPDIF Out connector)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall: 80

80





# AOpen EZ18

• Price: \$610 • Distributor: Bluechip Infotech [www.bluechipit.com.au](http://www.bluechipit.com.au) 1800 803 802 • URL: AOpen <http://solution.aopen.com.tw/xc/>

This SFF PC uses an identical case to the Intel version from AOpen, the EZ65. We're pretty happy about that, as it's one of the smaller cases in the roundup, and is also one of the more attractive ones, in a minimalist, iPod kind of way. It also benefits from the exquisite layout of its Intel based cousin, with excellent cabling, and a brilliant custom HSF with special clips that make this a breeze to install within the strict confines of the case. Unfortunately this HSF is a little noisy, but the smart fan control in the BIOS helps to quiet it down a little. Both of the AOpen systems had an excellent BIOS, with clear options for the overclockers, and a detailed POST screen displays the various frequencies and temperatures at boot; a very nice touch for the tweak freaks.

Unlike some of the more cluttered cases, there is plenty of room around the AGP slot, so we

didn't have to turn our RADEON 9700 PRO into a contortionist to make it fit. As far as performance goes, this box was the fastest of all of the AMD systems tested - no complaints there. But it still suffers from the main problem of the EZ65 - pricing. Considering the lack of features, \$610 is a lot to pay for a simple SFF PC. At least

this box has S-Video out...

Yes, this box is fast. Yes, this box is sexy. And yes, this box lacks features for the price. Should you buy it? Probably not...

## SPECIFICATIONS

- Dimensions: 200mm (w) x 334mm (d) x 191mm (h)
- nForce2-GT chipset
- 2 x VGA outputs
- 1 x S-Video output
- 1 x 10/100 Ethernet
- 2 x ATA133 ports
- 4 x USB 2.0 connectors
- AC97 5.1 channel ((Speaker, Line-out, Line-in, Mic-in, Center/Sub woofer and SPDIF Out connector)
- 3 x IEEE1394 connectors
- 1 x AGP
- 1 x PCI
- 220W PSU

PCPP Score

Overall:

80



# Biostar IDEQ200N

• Price: \$419 • Distributor: Westan Pty Ltd [www.westan.com.au](http://www.westan.com.au) (02) 9648 2060 • URL: [www.biostar.com.tw](http://www.biostar.com.tw)

You know that every man and his mini-PC humping dog are getting into the SFF business when a company as obscure as Biostar brings out its own version. We weren't expecting much from this relatively unknown brand, but walked away pleasantly surprised by the comprehensive package on offer (Not another anecdote about your girlfriend? - Ed).

We can't complain about how pretty this unit is - it's no AOpen beauty, but it's up there. A sliding door at the front hides away your drives, which isn't quite as convenient as a real stealth bay, but it hides away your boring beige drives well enough.

The interior of the case is a sight to behold, having one of the cleanest, most thoughtfully laid out interiors we've seen. Cabling is likewise brilliantly placed, tucked away with all of the plugs in the correct position for your components. The custom HSF is

very easy to mount due to the Pentium style mounting mechanism. The only complaint we can make about the layout is the fact that the AGP slot is on the inside of the PCI slot, making it impossible to use the PCI slot when installing a larger AGP card, such as the mammoth GeForce FX 5900 series. Performance wasn't quite as impressive as the amazing layout, benchmarking towards the tail end of the pack, but the

difference between it and the leaders was almost insignificant.

Considering this is the cheapest in the roundup, we can easily forgive it the lack of an LCD display, card reader or ability to make your gaming den smell less like a pigsty. Highly recommended for the AMD fan on a budget.

## SPECIFICATIONS

- Dimensions: 210mm (w) x 335mm (d) x 180mm (h)
- nForce 2 chipset
- 2 x VGA outputs
- 1 x 10/100 Ethernet
- 2 x ATA133 ports
- 2 x SATA ports
- 4 x USB 2.0 connectors
- 2 x IEEE1394 connectors
- 5.1 channel audio (2 x SPDIF out, 3 x Line-in, 3 x speaker out)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

89





# Biostar IDEQ200T

• Price: \$459 • Distributor: Westan Pty Ltd [www.westan.com.au](http://www.westan.com.au) (02) 9648 2060 • URL: [www.biostar.com.tw](http://www.biostar.com.tw)

The IDEQ200T is simply the Intel flavour of the IDEQ, and therefore has many of the same traits as its slightly cheaper relative. In fact, it appears that the case used is identical – it has the same slide down door at the front to hide away your drives, as well as the same unique 3 piece cover. It's a very small case; one of the smallest in the roundup as a matter of fact.

Where this machine differs is the motherboard that it utilises. This time around Biostar has squeezed an 865G board within the case, and it's great to see that it's fully Prescott Pentium 4 compatible. Not that any of you are going to rush out and buy a Prescott after reading how mediocre it is in this issue's review. But it's still nice to know that if and when Prescott does ramp up to worthwhile frequencies you'll be able to install it in this machine, although we're not sure

how such a cramped environment will handle the heat that Prescott dishes out.

Installing our components within the case was light on the brain cells, thanks to the spacious interior and excellent cabling. The inclusion of a passive Northbridge HSF helps to keep the volume levels at bearable levels, but we would have preferred the AGP port to be on the outside of the PCI port.

## SPECIFICATIONS

- Dimensions: 210mm (w) x 335mm (d) x 180mm (h)
- 865G chipset
- 1 x VGA outputs
- 1 x 10/100 Ethernet
- 2 x ATA133 ports
- 2 x SATA ports
- 4 x USB 2.0 connectors
- 2 x IEEE1394 connectors
- 5.1 channel audio (2 x SPDIF out, 3 x Line-in, 3 x speaker out)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

93

In all of the benchmarks this unit soared towards the front of the pack, proving that a budget price doesn't always equate to Valium powered performance. After checking out both of Biostar's offerings, we have to say that these guys know a thing or two about delivering an excellent

SFF offering, and won't charge the moon for it. If you're after a lower priced Intel SFF PC and can handle the lack of doohickies, this is the SFF PC for you.



# EPoX EX5-300S

• Price: \$499 • Distributor: Westan Pty Ltd [www.westan.com.au](http://www.westan.com.au) (02) 9648 2060 • URL: [www.epox.com.tw](http://www.epox.com.tw)

The EX5 is one of the few mini-PCs in the roundup with an entirely aluminium case, making it light enough for even the most exercise-deprived gamer to lug around at a LAN. It's not a bad looking either, although the front fascia is a little overcrowded for our liking. We can't really complain about this though, as this is a result of the impressive number of features that EPoX have jammed into this case.

As well as a sneaky stealth bay to hide away your optical drive, the front of this case includes a card reader that is happy to swallow your memory stick, secure digital, compact flash and smart media cards. A large LCD screen rounds out this front panel, displaying a variety of information ranging from clock speeds to system temperatures.

Unfortunately the interior of the case isn't as friendly as the front. It doesn't look too cluttered

at first, but the AGP port is too close to the hard drive bay, resulting in our video card making contact with the hard drive. The power cables are also inconvenient; we had to stretch one to the point of almost breaking to reach our video card. Thankfully the custom heatsink, which covers both the CPU and Northbridge, is very simple to mount.

EPoX have a reputation for

being an enthusiast brand, so it was a little disappointing to see it benchmark as one of the slower Intel SFF PCs on offer. Yet it's still quite a desirable PC, due largely to its excellent price. You'll be hard pressed to find a cheaper SFF PC with as many features, but be aware of the video card problem.

## SPECIFICATIONS

- Dimensions: 200mm (w) x 320mm (d) x 187mm (h)
- Intel 865G chipset
- 1 x VGA output
- 1 x 10/100 Ethernet
- 2 x ATA100 ports
- 2 x SATA ports
- 6 x USB 2.0 connectors
- 1 x IEEE1394 connectors
- 5.1 channel (2 x output, 2 x microphone, 1 x Coax SPDIF, 1 x Optical SPDIF)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

82





# MSI Mega 180 Deluxe

• Price: \$550 • Distributor: MSI [www.msicomputer.com.au](http://www.msicomputer.com.au) (02) 9748 0070 • URL: MSI [www.msicomputer.com.au](http://www.msicomputer.com.au)

**Y**ou want features? You got 'em. Good luck finding anything with more goodies squished into the box than the new Mega 180 Deluxe, but there's a catch with having so much in such a small package.

For such a small box, it's incredible how much MSI have managed to include. There's a 6-in-1 card reader on the front, as well as a very pretty multicoloured LCD, while a stealth bay hides away your optical drive. All of these are built into one of the sexiest mirrored facias we've seen – in fact the entire box is actually rather stunning. An infra red remote control is included for the couch potatoes, and the inclusion of S-Video out means you can use this as a dedicated media box without having to install a video card. It's even got a WiFi connection – very cool.

Unfortunately this is one of the most difficult SFF PCs to build, for

two reasons. First is the abominable manual that is included, looking like a collection of images that have been taken by a drunk with a mobile phone camera. But the worst problem is the terrible cabling job – it looks like the back room in a spaghetti factory. The biggest problem is the bundle of power cords coming out of the PSU, which extend into the

## SPECIFICATIONS

- Dimensions: 200mm (w) x 330mm (d) x 150mm (h)
- nForce2 chipset
- 2 x VGA outputs
- 1 x S-Video output
- 1 x 10/100 Ethernet
- 2 x ATA100 ports
- 4 x USB 2.0 connectors
- 1 x IEEE1394 connectors
- 5.1 Channel Audio (2 x output, 2 x microphone, 1 x Coax SPDIF, 1 x Optical SPDIF)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

85

area your video card occupies. This made installing our RADEON a total bitch of a job, and when it was installed it was very warped.

The benchmarksh were quite disappointing – the slowest of all machines tested in fact. MSI really needs to take a good look at the cabling within this PC – if it were

fixed we'd have no problem recommending this unit. If you're not going to use this case as a gaming machine, and thus won't be fitting it with an AGP video card, go for it – it's at a great price point considering its wealth of functionality. But if you are, pray that your video card likes bending.



# MSI Mega 865 Deluxe

• Price: \$570 • Distributor: MSI [www.msicomputer.com.au](http://www.msicomputer.com.au) (02) 9748 0070 • URL: MSI [www.msicomputer.com.au](http://www.msicomputer.com.au)

**T**his is the Intel powered brother of the Mega 180, and shares many of the same features, not to mention problems, of its slightly cheaper relative. It's got the same front panel as the 180, which incorporates a card reader, multi-coloured LCD screen, and a stealth bay, all tucked away behind a sexy mirrored face. This face is actually one of the smallest in the PowerTest, although the machine is fairly deep at 330mm. It also ships with an infra red remote control, as well as built in WiFi functionality.

Both of these machines use a screw-in CPU heatsink, which is simple to remove in the cluttered interior. We were a little worried that this wouldn't result in the tightest fit, but the machine didn't suffer from overheating so it obviously does the job. In the case of the 865 Deluxe, this HSF helped to make this machine the quietest overall of every machine testing,

scoring more points in the home theatre department.

Just like the AMD system, the power cord for the video card on the 865 deluxe wasn't long enough, so we had to get hold of an extension cable to supply our RADEON with juice. And once again we had to warp our precious video card to get it past the Medusa-like bundle of wires sprouting from the PSU, but again

## SPECIFICATIONS

- Dimensions: 200mm (w) x 330mm (d) x 150mm (h)
- Intel 865G chipset
- 1 x VGA outputs
- 1 x 10/100 Ethernet
- 2 x ATA133 ports
- 2 x SATA ports
- 4 x USB 2.0 connectors
- 2 x IEEE1394 connectors
- 5.1 Channel Audio (2 x output, 2 x microphone, 1 x Coax SPDIF, 1 x Optical SPDIF)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

88

the system ran fine, so it's not that much of a problem, in the short term at least. Performance was for the most part excellent, although it was let down by its relatively sluggish score in Jedi Knight II.

If MSI fixes the cabling problem, this could well be the

SFF PC to own. But until then we're still a little worried about the video card warping problem.





# Shuttle SN85G4

• Price: \$495 • Distributor: SATO technology [www.satotech.com.au](http://www.satotech.com.au) • URL: Shuttle [www.spacewalker.com](http://www.spacewalker.com)



Shuttle is to the SFF market as Dr Dre is to the hip hop scene – the grand daddy who kick started it all. So it wasn't surprising to see that they're still leading the pack, being the only company to submit an Athlon 64 compatible system.

We tested this unit with the slowest available Athlon 64 at the time the article was written, the 3000+. This retails at around twice the cost of the 2.6GHz Pentium 4 and Athlon XP 2600+ CPUs that were used in the other systems, at around \$350, but it's still not a wallet burning CPU. And as our standalone CPU reviews have shown, if you're looking for a gaming PC, the Athlon 64 is THE chip to use.

Just take a look at those benchmark results – 40% faster than the fastest machine in UT2K3, 20% faster in the Comanche 4 test, and leader of the pack in the other two. Without doubt this is the fastest SFF PC we tested, making it

the perfect base for power gamers.

Build construction was likewise excellent, with plenty of room around the AGP card, and a relatively quiet heatpipe HSF for the CPU. All cables were laid out at the appropriate lengths, and there was even a spare floppy drive power connector for those who want to run a floppy drive as well as a video card that requires one of

these connections (a feature that was surprisingly absent on most of the SFF PCs).

It's missing onboard video, but if you're running an Athlon 64, chances are you'll also be installing a dedicated video card, so this shouldn't be much of an issue. It includes NVIDIA's excellent onboard sound, as well as a 6in1 card reader, and it's all wrapped up

in a very affordable price.

Sure, the total price of the A64 CPU and this SFF PC is slightly higher than the other machines in the PowerTest, but when you see how much faster this machine is, it's easily justified. Want lots of power in a small box? Then this is the PC for you.

## SPECIFICATIONS

- Dimensions: 200mm (w) x 305mm (d) x 183mm (h)
- NVIDIA nForce3 150 chipset
- 1 x 10/100 Ethernet
- 2 x ATA133 ports
- 2 x SATA ports
- 4 x USB 2.0 connectors
- 2 x IEEE1394 connectors
- 5.1 channel sound (1 x rear out, 1 x front out, 1 x center/sub, 1 x SPDIF in/out, 1 x headphone out, 1 x line out, 2 x mic in)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

92



# Soltek Qbic EQ3702M

• Price: \$430 • Distributor: Altech [www.altech.com.au](http://www.altech.com.au) (02) 9735 5655 • URL: Soltek [www.soltek.com.tw](http://www.soltek.com.tw)



You might not be able to tell from our product shots, but the front of this case is mirrored, making it suitable for anyone still stuck in the heady cocaine honeymoon that was the 80s. This also hides away two stealth bays for your optical drives – including two external bays for optical drives is a feature found on few SFF PCs.

The documentation that ships with this box is noteworthy as being some of the most comprehensive seen of all units. If you can't figure out how to build your PC following these, we're guessing you also failed Lego 101. Installation was relatively simple as a result, although the HSF was a mother to get in place, requiring the removal of the PSU to do so. In terms of features, the EQ3702M sits around the middle of the pack. It's got two VGA and one S-Video outputs, which is rather handy, but it lacks an LCD, card reader or

any other noteworthy features. A large fan is mounted down one side of the case, and when combined with the PSU and CPU HSF, makes this one of the noisier cases – home theatre buffs beware. It's also the only PC in the roundup that use old skool jumpers for setting the FSB – a fact we discovered after building

the entire system. Of course.

This unit performed faster than all of the other AMD SFF PCs, a fact that's not lost on us considering the low price. Apart from the noise level of this unit, the EQ3702M is hard to fault. And considering the price, it's actually quite a steal.

## SPECIFICATIONS

- Dimensions: 215mm (w) x 335mm (d) x 210mm (h)
- nForce2 chipset
- 2 x VGA outputs
- 1 x S-Video output
- 1 x 10/100 Ethernet
- 2 x ATA133 ports
- 4 x USB 2.0 connectors
- 3 x IEEE1394 connectors
- 5.1 channel (1 x rear out, 1 x front out, 1 x center/sub, 1 x line out, 1 x mic in, 1 x optical SPDIF out)
- 1 x AGP
- 1 x PCI

PCPP Score

Overall:

92





# Soltek Qbic EQ3401A

• Price: \$420 • Distributor: Distributor: Altech [www.altech.com.au](http://www.altech.com.au) (02) 9735 5655 • URL: Soltek [www.soltek.com.tw](http://www.soltek.com.tw)

Easily the coolest feature of the EQ3401A is the way the power button reminds us of HAL9000's evil eye. Unfortunately there weren't any air locks that the unit could lock us out of, so we're not sure if it's sentient.

If there was a category in the encyclopaedia for "easiest to build SFF PC", there would be a picture of this box on display. With me grinning like a maniac in the background, trying to get more attention. Seriously though, this was by far the simplest of all of the boxes to build, so if you're looking to get your hands dirty building your first SFF PC, this could be the one to get.

Compared to the likes of the MSI boxen, this is a relatively simple PC, without an LCD screen, card reader or automatic garage door opener to spice things up. No matter though, it's still got the

basics, and there are more than enough I/O options, with a handy 6 USB ports and 3 IEEE1394 ports.

Sadly the performance of the EQ3401A didn't quite match the ease of installation. It turned out to be the slowest of all of the Intel boxes, but it must be remembered

it was still only around 5% slower than the leader. That's the kind of difference that even a benchmark freak like me wouldn't notice in real world circumstances.

For the price, this SFF PC is a solid little package, but it lacks

some of the oomph and features of the high end units.

## SPECIFICATIONS

- Dimensions: 215mm (w) x 335mm (d) x 210mm (h)
- Intel 865G chipset
- 1 x VGA outputs
- 1 x 10/100 Ethernet
- 2 x ATA100 ports
- 2 x SATA ports
- 6 x USB 1.1/2.0 connectors
- 3 x IEEE1394 connectors
- 5.1 channel (1 x rear out, 1 x front out, 1 x center/sub, 1 x line out, 1 x mic in, 1 x optical SPDIF out)
- 1 x AGP
- 1 x PCI

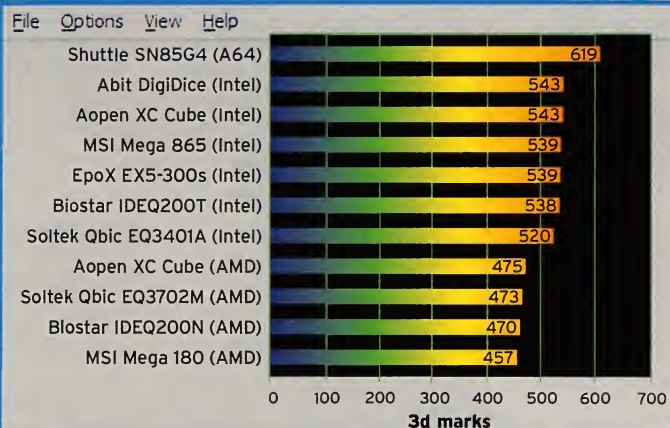
## PCPP Score

Overall:

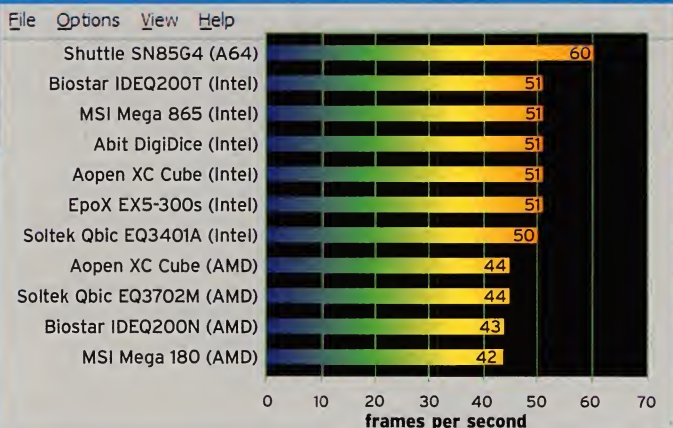
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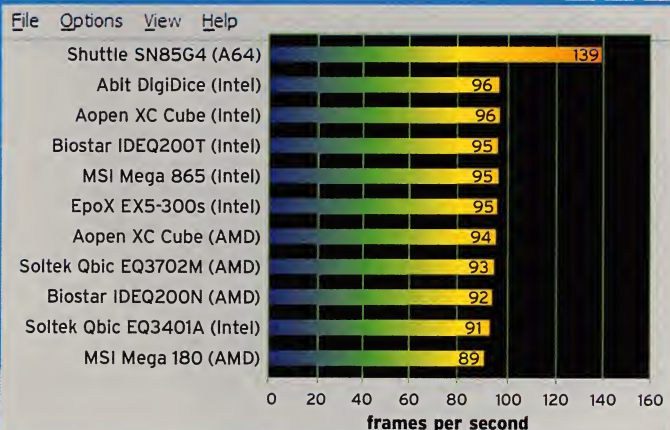
## 3DMark03 CPU test



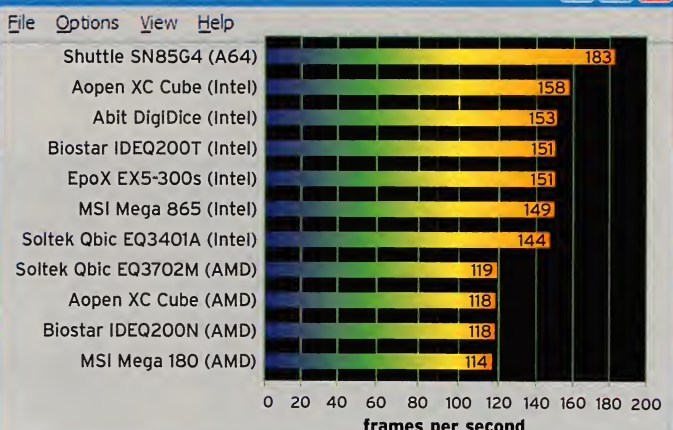
## Comanche 4 CPU test



## UT2K3 [H]ardOCP CPU test



## JKII CPU test





# Chip-Con Prometia Mach II

• Price: \$1,499 • Distributor: Overclockerz Supplies [www.overclockerzsupplies.au.com](http://www.overclockerzsupplies.au.com) • URL: [www.chip-con.com](http://www.chip-con.com)

Ironically, while many heatsink manufacturers have come and gone, after years of trial and error the stock heatsink/fan remains the most effective, not to mention best value Pentium 4 air-cooling solution on the market. However, although this is more than adequate for the average Joe, most overclockers know that with today's CPUs dissipating in excess of 100W, air-cooling simply doesn't cut it anymore. What's the

moving into the compressor to begin another cycle. Hence the reason why this process of exchanging energy is also known as the vapor-phase cycle.

So, now that you're aware of the Mach II's technical underpinnings, let's move on to something more practical, shall we? The unit itself weighs in at 19kg, and has been designed to sit comfortably under a regular PC case (alternatively, you can also

Much to our surprise, the results obtained were far more impressive than what we had ever expected. You think CPU temperatures of < 40C on your air-cooled system is low? Try -40C under full load! Furthermore, we were able to overclock our 3GHz P4 chip (not multiplier unlocked) all the way up to 4GHz, which is significantly higher than what we've achieved on air using the same chip. However, it's nonetheless important to note that the only limiting factor in our testing was the CPU itself, rather than the cooling system, and thus regardless of our results, you can be sure that the Mach II will push your chip to the very maximum provided your other components can take the increase in speed.

Overall, while it adds about 19kg to your system and will set you back a whopping \$1,499, the Mach II's excellent performance, highly intuitive interface and painless installation process makes it without a doubt the best extreme cooling solution we've tested to date. Unfortunately, for the majority of users at least, laying out so much cash on a cooling solution is pretty hard to justify.



## we were able to overclock our 3GHz P4 chip... all the way up to 4GHz

next rung on the ladder, you ask? Well, many will be quick to recommend the venerable water-cooling. However, it doesn't take a brain surgeon to figure out that water and electronics aren't exactly the best mix, and thus many conservative-types have opted to go with the even more effective "evaporator" cooling systems, a market currently dominated by Asetek and more recently, Chip-Con. Since we've already taken a good look at Asetek's VapoChill unit in previous issues, it was only fair for us to give Chip-Con's flagship Prometia Mach II solution some time in the lime-light as well.

However, before we begin, allow us to give you a brief run-down on how evaporator cooling works. Put simply, the Mach II functions much like your everyday household refrigerator, in that it features refrigerant (hydrofluorocarbon), a compressor, a condenser, an expansion valve and an evaporator, all of which work together in a constant cycle in order to produce those chilly subzero temperatures. The cycle begins at the compressor, which compresses (duh!) the refrigerant, forcing it to move into the (air-cooled) condenser. The condenser then transforms the refrigerant into a liquid using high pressure, with the resulting heat being dissipated by the condenser's air-cooled coils. Now a liquid, the refrigerant passes through the expansion valve, whose role is to reduce the refrigerant's pressure, allowing it to expand and evaporate. The final stage of the cycle takes place in the evaporator (the doohicky that sits on top of your CPU), which serves to transfer heat from the CPU into the refrigerant, transforming it from liquid to vapour, before

purchase a matching case/Mach II combo if you so choose), with the evaporator being attached to a hose-like device that protrudes from the unit for attachment to the CPU. Due to our stringent word limits, we're unable to detail the entire installation process here, however, rest assured that the provided colour manual is extremely detailed and well-written, guiding the user through even the most obvious stages. In fact, this is easily the most painless extreme cooling solution we've ever had to install, with an illuminated LCD enabling convenient monitoring of the system's status. Furthermore, the Mach II's control system can be attached to your motherboard, enabling users to monitor temperatures (including the ability to set warning and cutout temperatures), fan speeds and adjust LCD display text all from Windows using the provided Prometia Control Centre software. Finally, it's important to note that the Mach II itself is cooled by a total of four fans, however, these aren't nearly loud enough to become an annoyance (about 3-4dB).

We tested the unit using a Pentium 4 3GHz-based system running an Abit IS7 motherboard, a Radeon 9800 Pro and 1GB of OCZ DDR500 memory, all inside a Lian-Li PC65 case. However, while we've decided to go with Intel for this particular test bench, Chip-Con supply mod kits for AMD processors as well, so compatibility shouldn't be an issue here.

### SPECIFICATIONS

- Vapor-phase cooling solution
- Capable of removing 200W
- Windows-based interface
- Handy multi-function LCD display

PCPP Score

Asetek Beware - The Mach II has landed!

# 82

Asher Moses



Freezing point - the evaporator





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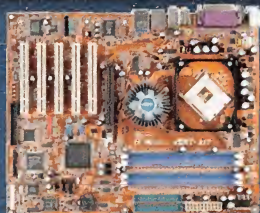
Intelligently adjusts CPU fan  
speed according to system  
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**OC μGURU**

Windows-based  
overclocking utility

# Do you Guru?

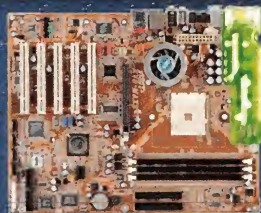
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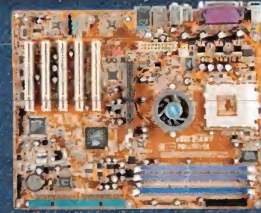
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# TDK 4x Armour Plated DVD-R



• Price: \$9.95 • Distributor: TDK Australia [www.TDK.com.au](http://www.TDK.com.au) • URL: [www.TDK.com.au](http://www.TDK.com.au)

If you're going to call your product "armour plated" and tell me that it's 100x more scratch resistant, then know that I'm gonna 'have a go' at it. The only way to describe the disc is to run through the problems confronting writable media. Fingerprints, solvents, dust and the teeniest of scratches are a traditional DVD's worst enemy. OK, rolling a rotary chair castor wheel over it can break it (oops) and dusting one with a steel bristle brush isn't good for it (hey, I'm just guessing). But these are not the usual suspects. Irregularities on a DVD's surface can interfere with the laser beam, producing errors. Among the most subtle causes of write and read errors are scratches which prevent the laser beam from properly focusing on the recording layer. The Armour DVD can simply withstand much greater exposure to scratching agents than conventional DVD discs can tolerate. Fingerprints and other

greasy contaminants aggressively stick to conventional discs, attracting dust and hard particles that can make the problem even more serious. The Armour DVD features superior lubricant and repellent characteristics, making it virtually impossible for smudges to stick to the disc surface and compromise the data. Conventional DVDs hold electrostatic charges for long periods and attract quantities of dust that can cause playback

and recording errors. The Armour DVD coating features superior anti-static, anti-dust properties, making the discs far less susceptible to these errors. Armour DVDs resist static charges better than conventional discs, and they quickly release any charges that are picked up. While a conventional DVD releases 50% of an electrostatic charge after 900 minutes, the Armour DVDs release 50% of a charge in only 50

minutes. I also tried the acetone, pen and steel wool trick, just like the clip on the website (check it out). Four gigabytes of data copied back without error and a movie backup also played without error. Note that you'll need a minimum 4x DVD burner to use the discs. If you backup critical data and if an extra dollar or so makes no difference, then the Armour Plated disc is for you.

Stuart Calvin

## SPECIFICATIONS

- 4.7GiB/4.37GB capacity
- DVD-R write once format
- Anti-UV coating
- 4x recording speed
- Not compatible with 2x/1x recorders
- Individual jewel case
- Smudge proof - superior lubricant and repellent characteristics
- 100x more scratch resistant
- Impervious to solvents
- Superior anti-static properties

## PCPP Score

Bloody amazing. An appealing option for 4x dash format recorders burning mission critical data.

92



# Asour VPC-1000 Multimedia DVD

• Price: \$269 • Distributor: U.Y.C Computers [www.uyc.com.au](http://www.uyc.com.au) • URL: [www.asour.com.tw](http://www.asour.com.tw)

The Asour VPC-1000 is the second 'multimedia' DVD-ROM that we've reviewed. Asour has modded their own brand DVD drive with a multimedia faceplate and added a terrific remote. There's a daughter card requiring a free slot at the rear of the PC - not necessarily a PCI Slot itself. The daughter card performs several functions including the provision of a separate power source for the drive when the PC is turned off. The VPC-1000 allows gamers to enjoy music without the need for the computer to be powered on. In essence, with your PC on or off, you can sit down and fire up a CD of music or listen to the FM Radio. All very handy when the LaN Blaster needs to be off during quiet contemplation of the last frag fest.

The faceplate controls the usual things and the remote is 'busy' but tidy and intuitive. It can control just about anything including A-B Repeat, search and equaliser

modes. The backplane of the daughter card has three audio connectors; one for an FM aerial socket, one for connecting to your front speakers and the other for Line In from your existing sound card. There is also a 12V DC power-pack pole. Internally the daughter card features four connectors including power from the card to the DVD drive, some audio sockets, including S/PDIF and a mini-IDE cable. That's a few more cables

inside your rig and the internal mini-IDE may not be long enough for some of the big boxes like Chieftan and Macase towers. The faceplate is not as rickety as it looks and locks back onto the drive with a snug fit. The faceplate control panel is an eye-catching Vacuum Fluorescent Display type with easy to read and intuitive feedback displays. The VPC-1000 supports 16x DVD-ROM and 48x CD-ROM read speeds. Digital Audio extraction is also fast and accurate from this drive. DVD

playback is only via the PC and there is no button for closing the tray, you must manually do this.

Unfortunately this is a rather pricey DVD-ROM drive, considering you can now pick up a decent vanilla model for around \$70. If you're happy to pay an extra \$200 for an LCD screen, go right ahead, but for the rest of us it's a bit of a stretch.

Stuart Calvin

## SPECIFICATIONS

- Fully functional remote
- MP3, CD-DA and FM radio player
- Search, shuffle, repeat, track program functions
- FM, program and equaliser presets
- FM mixer, music SRS WOW, Tru Base and 3D functions
- Real-time clock, timer-on and sleep-off functions
- 16x DVD and 48x CD-ROM
- Vacuum Fluorescent display
- Compatible with all CD/DVD formats (not DVD-Audio)

## PCPP Score

A funky and useful addition to your rig and should be considered as an interesting Case Mod, provided you've got the cash to blow.

73







**Work it, show it, play it!**



**ST6IG4**

- 400/533/800 MHz FSB Intel® Pentium® 4 / Celeron® CPUs
- ATI RADEON™ 9100 IGP chipset
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- Radically fast Integrated graphics, 8X AGP
- FireWire® 400, USB 2.0, 10/100 LAN, 6-channel audio
- Silent X: 250W PSU, ICE, airflow mechanics



**ST62K**

[ Zen ]

- 20% Smaller than previous XPC's
- 400/533/800 MHz FSB Intel® Pentium® 4 / Celeron® CPUs
- ATI RADEON™ 9100 IGP chipset
- Intel® Hyper-Threading technology
- Dual-Channel DDR400 memory
- Radically fast Integrated graphics, FireWire® 400, USB 2.0
- 6-channel digital audio w/ SPDIF I/O
- Silent X: External PSU, ICE, airflow mechanics



**SB75G2**

- 533/800 MHz FSB Intel® Pentium® 4 / Celeron® CPUs
- Intel® 875P + ICH5-R chipset
- Intel® Hyper-Threading / PAT technology
- Dual-channel DDR400 memory w/ ECC support
- SATA w/ RAID, FireWire® 400
- 6-channel audio, USB 2.0, Gigabit LAN
- Silent X: 250W PSU, ICE, airflow mechanics

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# Prescott Has Landed

## Intel's 3.40E Pentium 4 vs the Athlon 64 3400+

Manufacturer: Intel [www.intel.com.au](http://www.intel.com.au) • Supplier: Intel Australia [www.intel.com.au](http://www.intel.com.au)

**D**e-throning the infamous Star Wars kid, the latest phenomenon to sweep through the PCPP offices this month is Prescott - the highly anticipated 90nm core update for the Pentium 4. "It's finally here!", we cheered, as the package arrived unscathed from its undoubtedly treacherous voyage through the slums of Sunny Redfern. Boasting, on paper, a number of interesting improvements over its predecessor (Northwood), we were naturally expecting some handy performance increases across the board. Alas, upon dropping the chip into our test bench, the mood soon changed. "What a disappointment", Bennett cried, dashing to the restroom in a cheap attempt to hide the tears that were rapidly forming under his sleep deprived eyes. The rest of us soon followed. Could this be yet another disappointing launch for yet another type of Pentium 4?

### It's getting hot in here

As previously mentioned, Prescott is a 90nm part, the first to come out of Intel's labs in fact. What does this mean? Well, the processor is firstly able to run at higher clock speeds, while utilizing a lower core voltage (1.25-1.4V) and thus, a reduced heat output as well. In theory that is. Unfortunately it's only in theory. Real world specs show that Prescott is a much hotter CPU than its Northwood predecessor. For example, a

Northwood running at 3.2GHz pumps out a steamy 82W of hair curling heat, while a Prescott at the same frequency manages to go one better and output a whopping 103W! This increase in thermal output is totally the opposite of what \*should\* happen when a CPU undergoes a die shrink. Intel hasn't confirmed why Prescott runs so hot, but it's rumoured to be due to the use of strained silicon and low-k dielectrics (NVIDIA also ran into heat problems when using low-k dielectrics in the GeForce FX 5800).

As a result, Intel has a major problem on its hands. As the

theory, support the Prescott. However, there is a catch. While the chipsets themselves support the new core, you will need to make sure that your specific motherboard does too, as some motherboards are not built to the correct power standard as per Prescott's specifications. That said, since Prescott-support has recently become a huge selling point for many motherboard manufacturers, chances are that if your board supports the new core, its manufacturer will have it plastered in epilepsy-inducing font across the top of its web

Northwood's meager 512KB offering. However, while such advances provide great material for Intel's marketing department, real-world performance increases are unfortunately negligible. We tested the Prescott in our usual test bench as listed on the PowerTools page, save for the motherboard which was the supplied Intel D875PBZ board. Here's where things started to get ugly. From the get-go, Prescott proved to be one of the most problematic pieces of hardware we've had to test for quite some time now, which might I add is no small feat! To get the ball rolling, we attempted to perform some benchmarks using Intel's supplied motherboard, which failed miserably as the system wouldn't even POST. Thus, we naturally dropped the CPU into our regular Abit IC7 mobo, and proceeded to run into further problems. While the board managed to boot the CPU without issue, it wouldn't detect the correct multiplier (14x instead of 16x), thus making any tests we'd run on the system useless.

So there we were back at square one, with deadline running thin and still no Prescott benchmarks. Just when we thought things couldn't get any worse, a call for help to our Taiwanese contacts at Intel and Abit proved futile, as we happened to be testing the CPU over Chinese New Year. However, after much

### This increase in thermal output is totally the opposite of what \*should\* happen when a CPU undergoes a die shrink

processor ramps in frequency, it's going to get hotter than a club full of Eccy heads with a broken air conditioner. Crank up the voltage, and you'll soon have a nice smelly pool of melted silicon where your processor once was. It's no wonder that we couldn't overclock our CPU very far when using air cooling, but more about that later. If you're looking for a silent PC, Prescott isn't the answer, as all of this heat makes for a noisy HSF. The Athlon 64 3400+ has a much more manageable thermal output of approximately 89W, making its cooling system noticeably quieter.

Prescott boasts an improved branch predictor (vital due to its longer pipeline), 1MB of L2 cache, a larger 16KB instruction cache (still piss-weak when compared to the Athlon 64's 64KB), improved Hyper Threading and finally, 13 new SSE3 instructions. All of these additions add up to give the Prescott a transistor count of 125 million, around 70 million more than that of the Northwood. You'll be able to pick a Prescott Pentium 4 by the additional E found at the end of the model number, but don't get it confused with EE, as that's the Extreme Edition.

### Compatibility - A Small Nightmare?

As far as compatibility is concerned, many readers will be pleased to hear that, for the time being at least, Prescott-based P4s will feature Socket478 packaging (moving to LGA-775 packaging later this year with the release of the Grantsdale and Alderwood chipsets). Therefore, it's certainly possible for existing motherboards based on the i865PE, i875P and even the i848 chipset to, in

page. If this is not the case, however, compatibility can be checked by referring to the board's FMB (Flexible Mother Board) specification. In order to support Prescott, your board needs to be at least FMB 1.5 compatible, and while most boards are only FMB 1.0, many forward-looking top tier manufacturers such as Gigabyte, ABIT, Asus and MSI have built their i875P/i865PE boards with future processor support in mind. The bottom line is, if you own an FMB 1.5 (or FMB 2.0, for that matter) compatible board, running a Prescott-based CPU should be as simple as performing a BIOS update.

### Testing - The "Fun" Begins

The most significant feature of the Prescott core is without a doubt the L2 cache increase, doubling the

### The price of performance

Have we somehow slipped through a wormhole into an alternate Earth, a place where Johnny Howard stands up to George Dubbya, Australians respect our Kiwi cousins and Intel sells CPUs that are cheaper than AMD? Well, we're not sure about the first two, but it appears that the roles have reversed for AMD and Intel when it comes to pricing.

At the time of this review, these were the fastest two processors available from the two companies (apart from the ridiculously expensive FX and EE models). Surprisingly enough, the AMD CPU was the more expensive of the two, retailing at around \$700, while the Intel chip was substantially cheaper at around \$450. However, the imminent release of the 3.4GHz Prescott should even things out a little, as it's expected to retail for around \$700.

One thing to note is that no longer are AMD trying to push their high end processors at lower prices, instead preferring to match the prices of Intel. Doh for us!





tinkering and hair-pulling, we were able to get the processor to boot using the original Intel D875PBZ motherboard, albeit, this setup was at best flakier than a leper with dandruff. Therefore, after re-checking compatibility with our test bench, as well as perusing the BIOS setup, we were left with no other choice but to put the issue down to our particular Prescott chip itself, one which we will naturally be investigating over the coming months.

Despite the aforementioned instability, we were nonetheless able to run our benchmarking suite quite comfortably. As always, we compared the processor to AMD's flagship offering, which at the time of testing was the Athlon64 3400+. As you can see, the 3400+ romped the Prescott in every benchmark we threw at it, despite the large difference in clock speed (the A64 3400+ is exactly 1GHz slower than the 3.2GHz Prescott we tested with). While many would be quick to put such disappointing performance figures down to the lack of real-world benefits resulting from the extra cache, upon further investigation it was found that Prescott is even slower than its predecessor, the Northwood! How could this be, you might ask? Well, after a quick email to Intel we learned that "Prescott has 31 pipeline stages compared to 20 on Northwood". For those that aren't technically inclined, a longer pipeline means that the CPU will take more time to complete each clock cycle, making it, in theory, slower clock-for-clock than a processor with a shorter pipeline. While we're on the topic, this is also one of the main reasons why

Intel processors have to be clocked so much higher than AMD's offerings in order to provide a similar level of performance.

Although the longer pipeline will become far less of an issue once Intel begins ramping up Prescott's clock speed, for the time being at least it seems that the Northwood is a much more logical purchase. Not only do you skip the initial compatibility headaches, but you will also be able to obtain a Northwood for much cheaper once Prescott-based P4s start to flood the market.

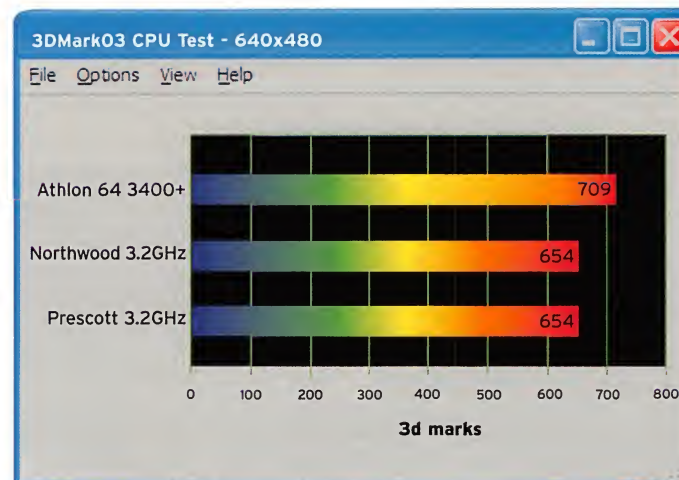
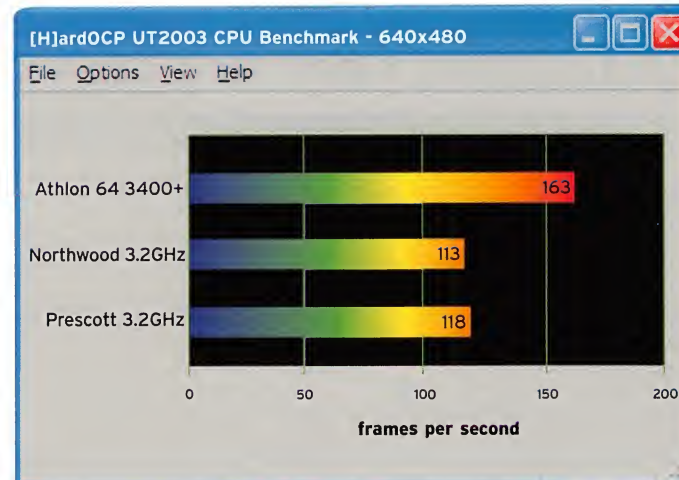
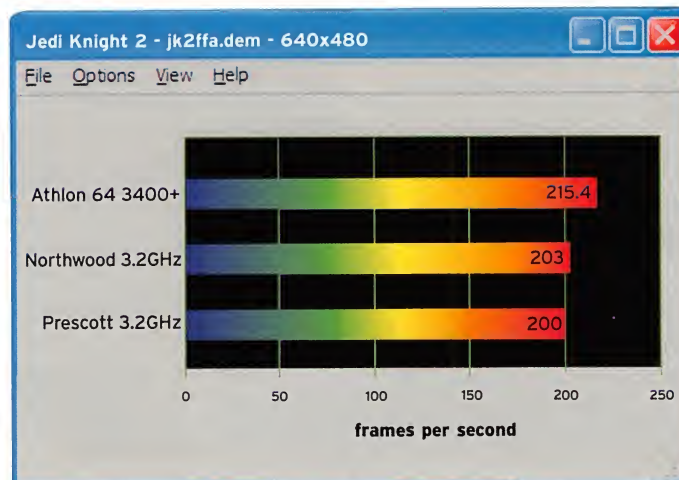
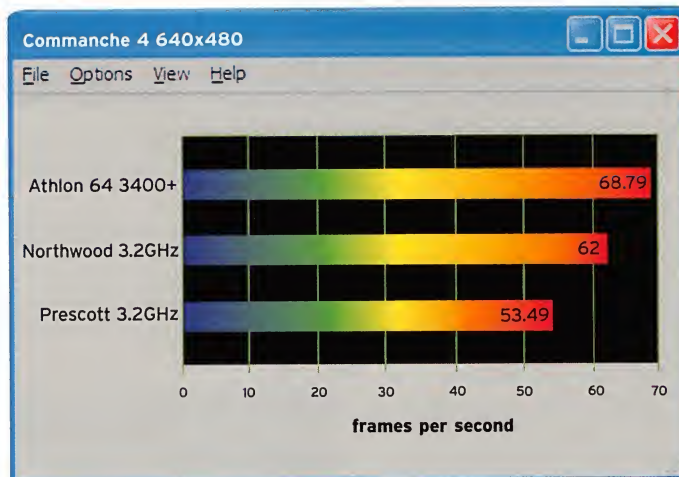
What's more, our overclocking results weren't exactly spectacular either, with our 3.2GHz Prescott chip maxing out at a meager 3.4GHz. It's important to note, however, that due to the rather poor array of CPU and memory modifications available in the D875PBZ's BIOS, overclocking was performed on Asus' P4C800 Deluxe board. Additionally, even at 3.4GHz, the chip routinely hit a whopping 75C. Although this isn't any worse than our 3400+ chip which only managed to hit 2.33GHz, the fact that the Athlon is able to hold its own in the performance stakes, is significantly cooler and is a 0.13-micron part makes this less of an issue.

### Wrapping It Up

Overall, while the 4GHz Prescott that is scheduled for release by the end of 2004 is looking very attractive (if it can hit this speed without turning into a miniature sun), at its current speed rating the new core is far less impressive, primarily due to the performance hit that comes as a result of the increased pipeline. Therefore, due to its (currently) mediocre performance, poor overclocking results and undoubtedly high price, we have no choice but to recommend that you cross Prescott off your shortlist, and purchase either an Athlon 64 or Northwood instead.

Asher Moses

intel®





# Western Digital 76GB WD Raptor

• Price: \$440 • Distributor: TDK [www.wdc.com](http://www.wdc.com) • URL: [www.wdc.com](http://www.wdc.com)



The WD740GD is the next iteration of the single platter WD360GD Serial ATA 37GB drive we reviewed not long ago. At the time, in PCPP# 92, we said that gamers needed platters spinning at or near the speed of light and that we should be able to cut data like a plasma sabre, or something like that. Which was pretty funny for those heady days. This time around, there are twin 37GB platters, still spinning at 10,000 RPM with the same huge 8MB buffer. I am in love and my wife doesn't like it. Is \$440 a lot of money? Yes it is, but the street price is under \$400, and if you're the sort who's worried about the potential calamity of 239fps in Half Life 2 instead of 240fps then a pair of Raptors in RAID0 is for you. This is a drive to partner two thousand dollars worth of video adaptor and CPU, someone who games regularly, edits video frequently, draws in 3D or moves large volumes of files around the place

and wants total reliability. Hell, I have a cheap two thousand dollar computer and I can't do without my Raptors.

With the Raptor you are buying additional speed over traditional parallel ATA drives spinning at 7,200 RPM and some very clever reliability tricks. In a typical home system, including gaming rigs,

there is inevitable vibration from moving components such as case fans, drive units, movement from suspended wooden floors, home theatre AV systems playing DTS sound track movies on LOUD... basically there is vibration and movement everywhere. Unbeknownst to most of us, hard-drives will slow down when they encounter vibration or movement and performance will suffer - it's not a good idea to place a

subwoofer next to your rig by the way. This is all true because I've sat through the PowerPoint presentations from Western Digital's Chief PR guru. The Raptor will detect vibration in a millifart, slow down for a microburp and then continue on its merry way thanks to the mathematicians who write the algorithms to account for vibration. Did I say I had the T Shirt? I got a sticker, too.

**Stuart Calvin**

## SPECIFICATIONS

- 76GB (70.78 in Windows)
- 10,000 RPM platter speed
- Latency 2.99ms
- Read Seek 4.5ms
- Write Seek 5.9ms
- Track-To-Track Seek 0.6ms
- Full Stroke Seek 10.2ms
- Operating Shock (Read) 65G @ 2ms
- Read/Write 8.4W
- Idle 7.9W; Standby 1.8W
- Five year warranty
- S-ATA and legacy Molex power connectors
- Adaptive read cache and optimised write cache

## PCPP Score

Let down by the price but an amazing drive

# 91



# Thermaltake Xaser III Lanfire VM2000

• Price: \$235 • Distributor: Anyware Computing Accessories [www.anyware.com.au](http://www.anyware.com.au) • URL: [www.thermaltake.com](http://www.thermaltake.com)

House hunting is tough. The aim is to stretch your budget to something more prestigious than your current digs. Large, neat, with street appeal and in a good location is the popular aspiration. For gamers, the local LAN is a prized neighbourhood, which requires a suitably impressive case to house your precious components and to express your inner self.

First impressions of the Lanfire are good. It's basically pre-modded, and largely constructed from aluminium. Largely, but not completely. Closer inspection reveals the front panel to be almost entirely plastic, detracting slightly from the reassurance that aluminium encasement provides.

It has an attractive, professional perspex window, a fan control and temperature monitoring unit, and a prominent glitzy animated 'fire' effect on the front. Altogether, it's not bad looking, if slightly on the kitschy side.

For front connectivity, we've got two USB ports, a FireWire port, and space for a floppy disk or two hiding behind a lockable security door that should keep unwanted visitors out. Underneath, you'd presume that the retractable plastic feet would offer a firm foundation, and while case-tipping is almost impossible, they're much more prone to sliding. The slight moulding imperfections in the hard plastic could 'Mr. Squiggle' your Tassie Oak desktop in no time. Rubber feet would've been a much safer option.

Internally, you'll find large thumbscrews for your drives (though not quite enough of them), screwless expansion card slots, and a removable drive tray. The lack of a

motherboard tray suggests a slightly more frustrating upgrade experience, but the roominess compensates enough for this. The design also minimises the chances of Scraped Knuckle skindrome, thereby saving you from the swear jar. Four Thermaltake sleeveless cooling fans provide excellent air conditioning, although the fan controller unit is picky about which knobs power which fans, so follow

the manual's directions here.

Being a light 4 kilos (empty), it's an easy trip from car to LAN and back again. You won't be skateboard mounting it and battering down doors to claim the best fragging spots, (a possibility with comparable cases) but it's not going to jiggle and quiver like a children's entertainer with a red cordial problem either. That's a good thing...

**Jason Brown**

## SPECIFICATIONS

- 4 KG weight
- 7 drive bays
- Aluminium/Plastic construction
- Fan control/Temperature alarm
- Perspex window
- PSU optional

## PCPP Score

Highly priced, but highly featured. There's more than enough here to keep you up with, or ahead of, the Joneses

# 82





TDK®

DVD

# EVOL>E

TO TDK ARMOUR PLATED RECORDABLE DVDS

INTRODUCING THE WORLD'S FIRST DUST-PROOF, UV GUARDED, DIRT RESISTANT ARMOUR PLATED DVD EXCLUSIVELY FROM TDK. WITH 100 TIMES MORE RESISTANCE TO SCRATCHING AND WRITE/READ ERRORS THAN EVER BEFORE, THERE'S NOTHING BETTER TO PRESERVE THOSE IRREPLACEABLE PRECIOUS MEMORIES. MP3. MUSIC. DATA. PHOTO. VIDEO. [WWW.TDK.COM.AU](http://WWW.TDK.COM.AU)





## Bennett Ring Powertools

While it would make our jobs a heck of a lot easier if we could review hardware based on the shininess of the packaging it arrives in, we're pretty sure our beloved readers are a little more interested in how the hardware actually performs. Which is why we have the PC PowerPlay PowerTools - batteries not included.

If you're anything like us, you probably don't give a rat's arse if Word will open three seconds faster on the new

Pentium 64, or if you can compress a zip file more speedily using DDR6-8000 memory. Nope, this is PowerPlay, so it's all about how well your games will perform.

Our PowerTools are broken into two categories, videocard tests and CPU/motherboard/memory tests, and you'll notice that most of these are based on real world game engines. We spoke to Intel, AMD, NVIDIA and ATI about which games to use to benchmark our hardware, and

after tossing out their biased recommendations settled on the following applications for the majority of our tests.

Actually, we used the benchmarks that competing companies both agreed upon, to help make sure our tests can't be accused of favouring one flavour of hardware over another.

Of course, every now and then a unique piece of hardware will arrive that can't be tested properly using these applications, and in these

circumstances we'll use the most appropriate benchmarking software.

We also use test benches (a fancy way of saying a PC outside of a case, waiting to electrocute unsuspecting hardware noobs), standardised hardware platforms that ensure our benchmark results can be compared to each other month after month. Check out the box below to see what components we use in our test benches.

### CPU Tests

#### 3D Mark03 CPU test

Nobody can deny that this CPU test is a nice way to give processors a thorough workout. And hey, it's easy to use and free - 'nuff said.

#### Jedi Knight 2

We couldn't ignore a benchmark that includes lightsabres. We run this test at low resolution (640x480), with texture details lowered, and geometry details maxed out.

#### [H]ardOCP Unreal Tournament 2003 test 2.1

We run the CPU test of this benchmark at low resolution, and it's one of the finest indicators of CPU performance available.

#### Comanche 4

It sucked as a game, but as a CPU/motherboard/memory benchmark this is a beauty. We run at 640x480 resolution to make sure it's the CPU that's carrying the load.

#### Videocard tests Aquamark 3

There ain't nothing sexier than pixel

shaders baby, and this benchmark uses a wad of DX9 shaders. You can almost hear your video card squeal in pain when running this test.

#### 3DMark2001 SE v330

An excellent DirectX 8.1 benchmark, we're still waiting for games to look this bloody good. Unlike its newer sibling, 2001SE doesn't have a reputation for being incredibly biased. We run this at the same resolutions as the Q3A test.

#### Halo

Considering this was a port from the NVIDIA powered Xbox, we were quite surprised to see ATI give this DX9 benchmark the thumbs up. Which is fine by us, as this is one game that will seriously test even the fastest of video cards.

#### [H]ardOCP Unreal Tournament 2003 test

Crank up the resolution and set the benchmark to High Quality mode, and you've got a test that will bring both ATI and NVIDIA products to their knees. This is also the test that we use for anisotropic filtering and anti-aliasing tests.

### TEST BENCHES

#### Intel Test Bench (x2) Intel Pentium 4 2.6C

HIS RADEON 9700 PRO  
[www.akatech.com.au](http://www.akatech.com.au)

Corsair 2 x 256MB XMS3200LL DDR400  
[www.altech.com.au](http://www.altech.com.au)

Seagate Barracuda 7200.7 160GB ATA100 Hard Drive  
[www.seagate.com](http://www.seagate.com)

ABIT IS7 865PE motherboard  
[www.altech.com.au](http://www.altech.com.au)

TOPOWER 470W PSU  
[www.auspcmarket.com.au](http://www.auspcmarket.com.au)

Mitsubishi Diamond View 2115e 21" monitor  
[www.mitsubishi.com.au](http://www.mitsubishi.com.au)

Microsoft multimedia keyboard and optical mouse  
[www.microsoft.com.au](http://www.microsoft.com.au)

Windows XP Professional  
[www.microsoft.com.au](http://www.microsoft.com.au)

#### Image Quality testing:

We also use a Sony G520 21" CRT monitor for the image quality testing of video cards.

#### AMD Test Bench (x1) AMD Athlon XP 2600+

HIS RADEON 9700 PRO  
[www.akatech.com.au](http://www.akatech.com.au)

Corsair 2 x 256MB XMS3200LL DDR400  
[www.altech.com.au](http://www.altech.com.au)

Seagate Barracuda 7200.7 160GB ATA100 Hard Drive  
[www.seagate.com](http://www.seagate.com)

ABIT NF7-S  
[www.altech.com.au](http://www.altech.com.au)

TOPOWER 470W PSU  
[www.auspcmarket.com.au](http://www.auspcmarket.com.au)

Mitsubishi Mitsubishi Diamond View 2115e 21" monitor  
[www.mitsubishi.com](http://www.mitsubishi.com)

Microsoft multimedia keyboard and optical mouse  
[www.microsoft.com.au](http://www.microsoft.com.au)

Windows XP Professional  
[www.microsoft.com.au](http://www.microsoft.com.au)



[www.akatech.com.au](http://www.akatech.com.au)



[www.corsairmicro.com](http://www.corsairmicro.com)



[www.auspcmarket.com.au](http://www.auspcmarket.com.au)



[www.intel.com](http://www.intel.com)



[www.abit.com.tw](http://www.abit.com.tw)



[www.amd.com](http://www.amd.com)



[www.seagate.com](http://www.seagate.com)



[www.hightech.com.hk](http://www.hightech.com.hk)



[www.altech.com.au](http://www.altech.com.au)



[www.sony.com.au](http://www.sony.com.au)



MITSUBISHI ELECTRIC AUSTRALIA

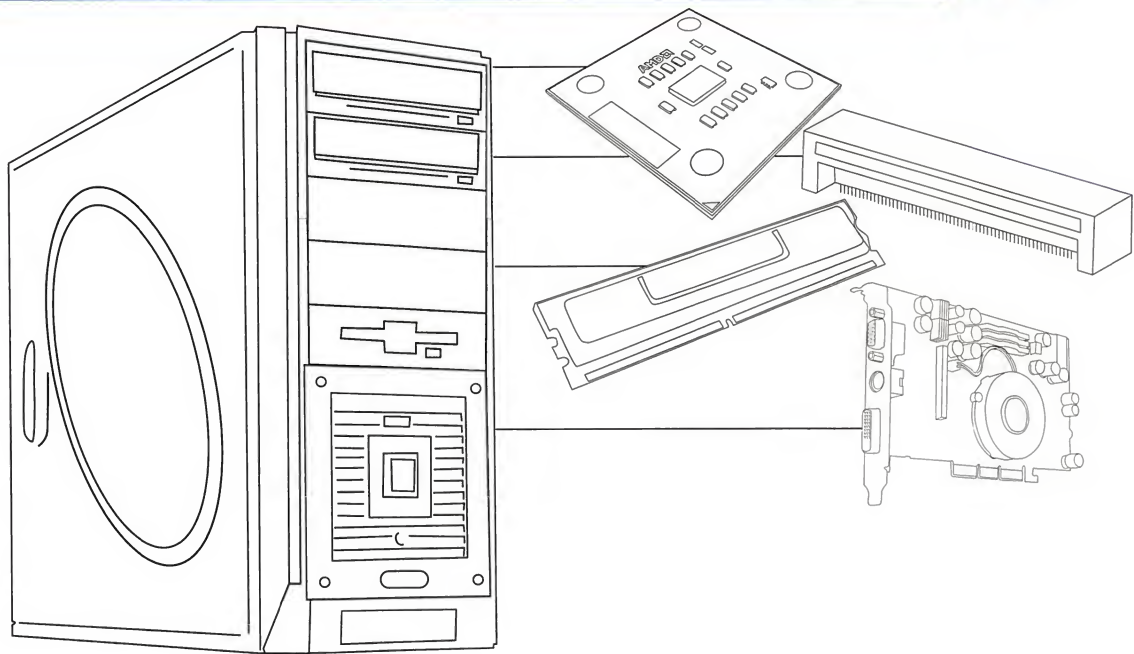
[www.mitsubishi-electric.com.au](http://www.mitsubishi-electric.com.au)



# Stuart Calvin

## Decrypt

**L**ike a CD recordable, almost anything can be written to a DVD recordable. There are exceptions though, forget MP3, because very few MP3 capable standalone DVD set-tops support it because most verify DVD R/W as DVD-Video only. You also can't burn CD audio data or a CD based games onto a DVD and have it play in DVD players.



**ISO and BIN/CUE:** These are generally Compact Disc image formats, like the files you can download from a warez site. You can burn them as data onto a DVD but you can't burn the contents of these images onto a DVD. I just needed to mention this as it's a common question in many DVD forums.

**DVD:** Digital Versatile Disc ... as though you didn't know that.

**DVD R:** Digital Versatile Disc Recordable (once only, boys and girls).

**DVD RW:** Digital Versatile Disc Rewriteable (up to 1,000 times for dash RW).

**DVD-RAM:** Digital Versatile Disc Random Access Memory. The format differs from a DVD R/W in that it's re-writable many, many times, is more robust and highly dependable. Discs are available in capacities of 2.6GB or 4.7GB for single sided discs and 5.2GB or 9.4GB for double sided discs. DVD-RAM discs can only be accessed in a DVD-RAM drive. They cannot be used in set-top DVD players or PC DVD-ROM drives.

**DVD-:** The "Dash" format uses organic dye technology, like CD-R/W, and is compatible with most DVD drives and players.

**DVD+:** The "Plus" format is also a dye-based medium, like DVD-R, so it has similar compatibility. Physically, it is 'better' than DVD-R/W given its lossless linking and both CAV and CLV writing strategies.

**Coloured Books :** These are compact disc standards - Red Book is audio, Yellow Book is CD-ROMs, Orange Book is CD-R, White Book is Video CD ... so what?! All DVD players and drives will read Red Book audio CD-DA. This is not actually required by the DVD specs, but so far all manufacturers have made their DVD hardware CD compliant (phew). Is Video CD compatible with DVD? Sometimes. It's not required by the DVD specs, but it's simple to support the White Book Video CD standard since any MPEG-2 decoder can also decode MPEG-1 from a Video CD.

**DVD-ROM (ISO):** Depending on who you're talking to, "ISO" may refer to all disc image files or only certain kinds. Strictly speaking, ISO defines a file format and not a disc image format. In Nero, for example, it means that you want to burn a data disc.

**DVD-5:** a 12cm, single-sided/single-layer DVD; 4.37 gig of data or over 2 hours of video. More common in North America than Australia.

**DVD-9:** a 12cm, single-sided/dual-layer DVD; 7.95 gig or about 4 hours of video. Very common in Australia. Generally, the movie contains a layer break. North Americans dislike the layer break and prefer a flipper.

**Layer Break:** the transition from one layer to the another and is generally noticeable as a slight pause or flicker.

**DVD-10:** a 12cm, dual-sided/single-layer DVD; 8.74 gig or about 4.5

hours of video. Very common in North America. Colloquially known as a "flipper".

**Flipper:** discs which need to be turned or 'flipped' to continue the movie.

**1x:** A 'one times' DVD speed is 11.08 Megabits per second (Mbps) or 1.39 Megabytes per second (MB/s) which is about 9.5x CD speed. A 4x recorder can write a full DVD recordable in about 15 minutes.

**8x:** Currently the fastest writing speed, but, only achievable on DVD-R and towards the outer edge of the disc. It is 11.08MB/s or a 75.65x CD speed.

**4.7 'GB':** Single-layer DVD recordables contain 4,700,000,000 bits or 4,482.27MB or 4.37722GB. You simply can't record 4.7 Gigabytes onto your DVD-5 recordable. Shoot for 4,482MB or 4.37GB and she'll be fine.

**DVD-Video:** Traditional movie format discs. DVD has the capability to produce near studio-quality video and better than CD-quality audio. DVD is vastly superior to consumer videotape and generally better than laserdisc.

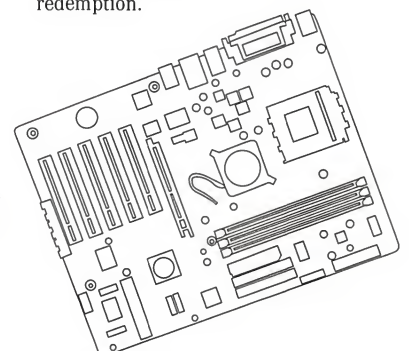
**MPEG-2:** Stands for the "Moving Pictures Experts Groups". DVD-Video is usually encoded from digital studio master tapes to MPEG-2 format. The encoding process uses lossy compression that removes redundant information (such as areas of the picture that don't change) and information that's not

readily perceptible by the human eye. The "-2" revision enables multi-channel sound (and other scientific geeky things).

**DVD-ROM (UDF):** Universal Disc Format. A file system endorsed by OSTA (the Optical Storage Technology Association) for use with packet writing (just like a floppy diskette). DVD-ROM (UDF/ISO) Almost all DVD-Video and DVD-ROM discs use the UDF bridge format, which is a combination of the DVD MicroUDF and ISO 9660 file systems. Don't rip and burn in any other format for MPEG-2 movies.

**Rip:** Backing up a DVD movie to your hard-drive. This may be illegal.

**Rippers:** CloneDVD, Nero Recode, SmartRipper, DVD Decrypter, DVD Shrink (Google is your friend). Clone and Nero can rip and write but cannot de-Content System Scramble without a de-CSS filter like AnyDVD. Decrypter can be used to burn a DVD-5 sized 'ISO' to disc. If Decrypter can't rip your movie then nothing can - your DVD is hosed ... waxed ... beyond redemption.





# THE BEAST



## In association with Altech Computers

Welcome to PCPP's Beast page, where we give you the blueprints for three very different PCs, each catering to a different wallet thickness and/or level of technical knowledge.

For those with extra phat, well padded money holders, look no further than the Beast. You'll be hard pressed to find a faster machine, but you'll pay through the nose for the privilege. Then there's the Mutant, for those who don't mind a bit of tinkering and overclocking. It offers the best balance between price and performance. Finally we have the Beastie. Cheap it may be, but slow it certainly is not.



## CPU, MEMORY AND MOTHERBOARD

### AMD Athlon FX-51 CPU

Goodbye Intel, hello AMD. The FX-51 is bloody expensive, but the fact that it's the fastest gaming processor around meant we had no choice but to fit out The Beast with this speed demon.

**\$1258** [www.amd.com](http://www.amd.com)



### Asus SK8N

Yep, it's one incredibly expensive motherboard, but that's what you have to put up with when you want the best of the best. At least you'll know that it's of the highest quality.

**\$412** [www.asus.com.tw](http://www.asus.com.tw)



### 1GB Corsair TWINX-3200LL ECC Registered

The FX-51 demands only the finest in registered memory, and a Gig of the stuff for a mere \$560 is quite simply a bargain. It's Corsair as well, so it must be pretty good, right?

**\$560** [www.corsairmemory.com](http://www.corsairmemory.com)



### Zalman 7000A-Cu

The Beast is so chunky, so wild and untameable that you need a real man's cooler stuck on the top of your mighty CPU. Zalman delivers, offering a chunk of metal that performs well and isn't too screamingly loud.

**\$79** [www.zalman.co.kr](http://www.zalman.co.kr)



### Antec TruePower 550W

With 550 watts of blistering power you can plug in as many crazy case fans, cooling systems and front-mounted LCD panels as you like and still enjoy smooth, reliable gaming.

**\$200** [www.antec-inc.com](http://www.antec-inc.com)



## VIDEO, AUDIO AND CONNECTIVITY

### XpertVision RADEON 9800XT PRO 256MB

With more onboard memory than some people's whole PC, the latest in the RADEON family will get your FSAA performance up and keep it up.

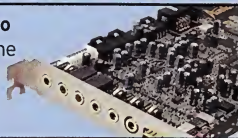
**\$770** [www.xpertvision.com.tw](http://www.xpertvision.com.tw)



### Creative Soundblaster Audigy 2 ZS Platinum Pro

The most powerful consumer-level soundcard on the market. Support for every sound format, including Dolby 6.1 surround.

**\$499** [australia.creative.com](http://australia.creative.com)



### Creative Inspire 6600 6.1

Let your soundcard handle all the decoding and plug these cheap but powerful speakers into the ports on the back. An extra rear channel beefs your gaming surround!

**\$264** [australia.creative.com](http://australia.creative.com)



## STORAGE AND OPTICAL

### Sony DRU510A DVD +/- R/RW

Almost but not quite cheap enough for mere mortals to own, this Sony drive will burn DVDs and CDs at 4X and 24X respectively - tasty!

**\$299** [www.sony.com.au](http://www.sony.com.au)



### Samsung 816BRPS 16x DVD-ROM

It's straight up and down, it's cheap, it's fast, it works well and you need it to copy - sorry, back up - DVDs using your nifty writer.

**\$62** [www.samsung.com.au](http://www.samsung.com.au)



### 2x Western Digital 74GB Raptor WD740D RAID 0

Sure, they're not the biggest hard drives on the planet, but they're arguably the fastest. And with a name like Raptor, it's obvious they were created just for our Beast.

**\$860** [www.westerndigital.com](http://www.westerndigital.com)



## DISPLAY, INPUT AND COSMETICS

### 21" Sony FD Trinitron G520

Until large LCD catches up with small LCD the Beast will stick with dependable, mature, established CRT. And the G520 is one of the best in the business.

**\$1960** [www.sony.com.au](http://www.sony.com.au)



### MS Wireless Optical Elite Desktop Pack

Keyboards and mice don't get much snazzier than this delectable combo.

**\$210** [www.microsoft.com.au](http://www.microsoft.com.au)



### Antec P160

This beast of a case is perfect for a beast of a PC. A couple of temperature gauges on the front make it perfect for letting you know when your system is about to explode.

**\$250** [www.antec-inc.com](http://www.antec-inc.com)



# BEAST VALUE:

# \$7683

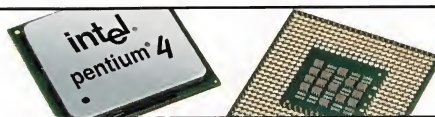


# THE MUTANT

Thanks to the popularity of overclocking and tweaking, we've included this machine to show you exactly what you can get away with for not much outlay. Tweaked to within an inch of its life, this is the machine we DO own, versus the Beast, which is the machine we'd like to be able to AFFORD to own.

## Intel P4 2.6GHz "C" at 3.3GHz

Truly the most overclockable of all modern CPUs, the 2.6C can be run at staggering 700MHz over its stock speed. With the standard Intel HSF. Now that's value.  
\$300 [www.intel.com](http://www.intel.com)



## Abit A17

An 865PE based mobo from Abit, the A17 has a very handy feature in that you can overclock your system directly from the Windows desktop. Which means you needn't delve into the confusing BIOS options ever again.  
\$195 [www.abit.com.tw](http://www.abit.com.tw)



## MS Wireless Optical Elite Desktop Pack

Sure, this combo isn't exactly cheap, but you can't skimp on the interface between you and your box of love. And it's all wireless, making it perfect to use from the comfort of your couch.  
\$257 [www.microsoft.com.au](http://www.microsoft.com.au)



## Antec TrueControl 550W

What could be groovier than a PSU that comes with a 5.25" front plate with dials and knobs for controlling fan speed plastered all over it? Nothing, that's what.  
\$210 [www.antec-inc.com](http://www.antec-inc.com)



## Antec PlusView 1000AMG

An excellent pre-modded case, with more than enough fan mounts to keep your oc'd system nice and chillin'. And with this machine, you'll definitely make the most of the side window.  
\$171 [www.antec-inc.com](http://www.antec-inc.com)



## 1GB Corsair TWINX-3200C2

Damn memory is getting cheap. Who'd have thought a year ago that you could now pick up a gig of ridiculously fast DDR-RAM for a mere \$377? Not us, that's for sure.  
\$377 [www.corsairmemory.com](http://www.corsairmemory.com)



## XpertVision RADEON 9800XT

Amusingly, the video card is the single most expensive component of the Mutant. It's hard to believe that you can now get a RADEON 9800XT for a mere \$770, considering just how blazingly fast this video card is.  
\$770 [www.xpertvision.com.tw](http://www.xpertvision.com.tw)



## Zalman VGA Heatpipe Cooler 80C-HP

Bolt this mighty thing to your video card, attach the included fan, and who knows what insane core speeds you can achieve?  
\$68 [www.zalman.co.kr](http://www.zalman.co.kr)



## 120GB Seagate IDE

The first upgrade HDD I ever bought was 6GB and cost \$447. So this is pretty damn cheap. Only standard IDE, but at this price we can't complain.  
\$146 [www.seagate.com](http://www.seagate.com)



## Creative SB Audigy

Lacks a few of the features found on the Audigy 2, but only the ones that don't really have much effect on gaming. There's a lot of soundcard here for not much cost.  
\$129 [australia.creative.com](http://australia.creative.com)



## Creative Inspire 6.1 6600

They're so cheap they're good enough for the Mutant too. No decoder, no difficult optical inputs, just ordinary wires plugging in to a set of extraordinary speakers.  
\$249 [australia.creative.com](http://australia.creative.com)



## Samsung 816BPRS 16x DVD-ROM

Same as the Beast, this drive is fast, dependable and has a slightly funkier facade than most of the beige monstrosities currently available.  
\$62 [www.samsung.com.au](http://www.samsung.com.au)



## Samsung 252BRNS 52x24x52 CD-RW

Wow, these things sure got cheap didn't they? Burn CDs in hardly any time at all thanks to 52x writing. Backup all your digital LAN shots for posterity. Pose nude... no wait, don't.  
\$59 [www.samsung.com.au](http://www.samsung.com.au)



## 19" Samsung 995 Dynafat

Cheaper than the video card but still a lot of sleek, flat monitor. Nineteen inches is pretty much the minimum for decent gaming, and we can't wait until a 16ms LCD this big costs this much.  
\$545 [www.samsung.com.au](http://www.samsung.com.au)



## 4x Antec Internal Illuminate

Pep up the Mutant with a few light sticks. Stick 'em on the monitor, in the case, wherever you like. USB powered and respond to sound - clap on, clap off! Other cosmetic additions to the Creature are limited only by your imagination..  
\$176 [www.antec-inc.com](http://www.antec-inc.com)



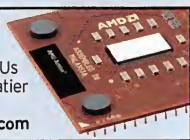
# MUTANT VALUE: \$3665

# the beastie

The cheapest but worthiest PC of all, the Beastie is for all of us who need gaming, the web and to generally have fun without worrying about overclocking or our bank account.

## AMD -Athon XP 2500+ Barton

The cheapest CPUs keep getting meatier and meatier  
\$146 [www.amd.com](http://www.amd.com)



## Abit NF7

nForce2 is good and this implementation of it is even better  
[www.abit.com.tw](http://www.abit.com.tw) \$132



## Antec Lanboy

Includes a 350W power supply, window and carry strap.  
\$180 [www.antec-inc.com](http://www.antec-inc.com)



## 512MB Corsair PC-3200

A budget PC with half a gig of RAM. All praise the open market.  
\$220 [www.corsairmemory.com](http://www.corsairmemory.com)



## GeCube RADEON 9800

Yes, a 9800 in a budget system. Holy shit batman.  
\$445 Available from [www.emagen.com.au](http://www.emagen.com.au)



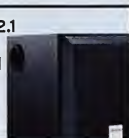
## 80GB Seagate IDE

Plenty of room for not much cash. Dependable and reliable.  
\$110 [www.seagate.com](http://www.seagate.com)



## Creative Inspire 2500 2.1

Plug 'em in to the nForce2's onboard sound and it's MP3-tastic!  
\$119 [australia.creative.com](http://australia.creative.com)



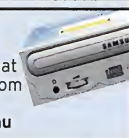
## Samsung 816BPRS 16x DVD-ROM

Good enough for all the PCs on this page, swift and reliable.  
\$62 [www.samsung.com.au](http://www.samsung.com.au)



## Samsung 252BRNS 52x24x52 CD-RW

Cheap, fast, reliable, what more could you want from a CD-RW?  
\$59 [www.samsung.com.au](http://www.samsung.com.au)



## 17" Samsung SyncMaster 753S

To think flat screen 17" monitors were once worth \$800. I love the future.  
\$226 [www.samsung.com.au](http://www.samsung.com.au)



## MS Internet Value Pack

Not content with owning your OS world, MS are now ruling the I/O roost.  
\$64 [www.kmepc.com](http://www.kmepc.com)



# beastie value: \$1763

So, you want one of these three fine beasts? Luckily, all of these components are available at  
**ALTECH Computers**  
[www.altech.com.au](http://www.altech.com.au)  
02 9735 5655





# SETUP



WRITE TO SETUP AT:

Setup  
PC Powerplay  
78 Renwick St  
Redfern  
NSW 2016

setup@pcpowerplay.com.au



## LCD VS CRT - FIGHT!

**Q** A mate is arguing that new LCD monitors surpass the quality of my CRT (Sony Trinitron 19" G420), on the basis of brightness, colour, and refresh rate (for gaming/fast action movies). I was arguing roughly the opposite, but my main focus was on LCD refresh rates being worse than CRT. As we did not seem to find any common ground, I was hoping that you could provide us with the ultimate answer for our debate.

**Drunken Cactus**

**A** Generally speaking, quality CRTs have superior display capabilities over LCDs. That said, there are now good-enough LCDs around that don't exhibit ghosting or streaking during games. While CRTs can have fabulous refresh rates at ridiculously high resolutions (say, 110Hz for 2000x1600), LCD panels have a response rate: the response rate specifications are typically based on the average time to switch from full on to full off and back again by applying voltage to a liquid crystal cell. Many new and sophisticated technologies have been developed to speed up response times and widen viewing angles, but they still come up short. Most advanced panels specify response times of 45 to 25 ms. Based on these numbers,

these panels can only switch fast enough to create a 22 Hz to 40 Hz image. Standard video requires about 30 Hz performance, and some progressive scan formats of HDTV require up to 60 Hz. You'd need a panel with cell response times of 16.7 milliseconds in order to handle 60 Hz signals. 16ms is currently the fastest panel you can get in Australia and is used by several LCD manufacturers. 12ms models are due out soon. That said, there are other reasons why you would, or would not, use an LCD panel. Check your mate's panel response rate. At 16ms - he wins, at 25ms or greater - you win.

## SURROUND ME

**Q** My Audigy 2 ZS claims output of 5.1 surround sound, movies work fine, but games give me no end of trouble! I have trouble with my external decoder and in a game, if there is something directly in front of me, I get no sound from it at all! I looked through all of the software for options, and set them all to 5.1 surround. Nothing. I emailed Creative Tech Support with my problem and they told me to turn off the internal decoder for Dolby Digital and DTS encoding, which has NOTHING to do with games. I emailed them again saying so, and they told me to enable EAX effects

through Mediasource, turn on CMSS, and make sure that the speakers were set to 5.1. The last was straight from the instructions, and the other two are for the bundled media player, not games! What do you suggest?

**rt**

**A** 3D audio effects from games almost always produce 4-channel surround, so generally there is no output to the centre speaker in a 5.1 speaker system. However, the Audigy can output 5.1 speaker sound for any game that produces 5.1 speaker sound (or 6 or 7). Given that your movies work fine then your connections from the Audigy to the speakers are physically setup correctly. Forget your external decoder for the moment. You have to further setup things in the Creative Surround Mixer which you can start from AudioHQ. Depending on the software version, you have to set the 'task' option to 'custom' or default and the 'preset' option to 'no effects'. Some applications will drop the 'preset' option back to 'super environment' which disables the rear sound or the centre or the fronts, depending on the rogue application (Winamp 3 is one of them and disables the rears). In advanced audio options

starting from the defaults, change 3DHardware to 'yes'. Do not turn off reverb in the advanced audio settings. Please make sure that you've installed the Mixer. I know that people often hate typical 'driver advice' but I recommend installing EAX 4.0 from <http://us.creative.com/support/> if you don't already have it.

## THIRD TIME LUCKY

**Q** Hi, I've just got 3 quick questions. 1) What's is the difference between registered RAM and normal RAM? 2) If I get a HalfLife2 voucher, do I have to download it - it would take me days and days ... 3) Would you rather have an AMD64 3000+ or an AMD64 3200+, there's not much difference between the two in benchmarking (around 5%).

**Jonno Yeo**

**A** 1) You and I don't need registered stuff.  
2) No: full information is here [www.ati.com/gitg/promotions/hl2offer/](http://www.ati.com/gitg/promotions/hl2offer/)  
3) \$350/2GHz/512KB versus \$450/2GHz/1MB, hmm, bang for buck - a 3000+. Beats \$1400 for a P4-3200-800EE anyway, either way!

## BOXING WITH JUKE

**Q** I'm assembling a 'jukebox' PC out of my spare parts to store my 500 CDs on it. Could you recommend what hardware and software I would need? Would it need to be connected to the net?

**lavender rose petal**

**A** Good idea! And backing up original CDs is a very smart move. Assuming an average of 650MB for each CD, you'll need 320GB for ripped .WAV files or 65GB for 192Kbps MP3s (coming in at around 9-11MB at that bit rate). A PII 300-450MHz will do the job nicely, an MX400 video adaptor, Win98SE (or XP), 256MB or more of PC100/133 RAM and as much disk space as you can afford: a 160GB can be had for less than \$175. Try CDex for ripping and Windows Media Player is not bad for playing. If you've got a home LAN, by all means plug it in for updated media information. Using mapped drives, your humungous



**If only our PC based jukeboxes looked this good**

disks can be anywhere on the network, not necessarily in the Juke Box. Add a REALmagic Xcard DVD decoding card for a total media rig.





## GOODBYE AA

**Q** I have a WinXP based Athlon XP 2200+ system with 256MB of DDR333 RAM and a Radeon 9600XT. In Rainbow Six 3: Raven Shield I had to change the resolution from 800x600 to 1024x768 ... it just wouldn't run in the other resolution. Now some people might say 'what's wrong with that?' ('cause 1024x768 looks better anyway) but with anti-aliasing at 4x on both Direct3D and OpenGL settings, the frame rate is kind of jerky. Don't say just to 'put down the anti-aliasing' thing but there is really no point in me getting a new card if I didn't want to see better graphics. I spoke to the guys at the store and they said that I just needed to upgrade my RAM to 512MB. I just wanted to see what you guys thought.

Julian

**A** It sounds like you might have a refresh rate issue if you can only see part of the screen. Check the Catalyst driver help section for info on how to force an increased refresh rate on your video card. If you want good performance at higher resolutions, you'll need more system memory. I have a gig of Corsair XMS and WinXP Pro takes 260MB just to get to the desktop: that's more physical memory than you currently have. I have, of course, a gaming profile for Windows which does away with lots of unnecessary services and background apps. You might also like to check that anisotropic filtering is not set too high.

## MEMORY LOSS

**Q** My grandpa's computer lags like a SOB. I'm not talking Internet, I'm talking normal applications. Switching between web pages takes about five seconds. Even bringing up the Start menu lags about three seconds. I'm talking the Sims, the game now lags so badly it's basically unplayable. The computer has been like this ever since my grandfather got it 3 years ago. He has taken it

back numerous times but they never fix the problem, so in desperation I'm writing to you. The specs are Celeron 733MHz, 48MB RAM, 20GB HDD and WinMe. Personally I think my grandpa got ripped off from the get-go and that WinMe has a lot to do with the problems.

Rory Paltridge

**A** I still have a Celeron 733 test rig but it's coupled with 512MB of PC133 memory and a basic MX400. Yes, WinMe was a mistake but I know some people who get by with it. However, if I ran my 733 with only 48MB of RAM (presumably 4 x 16MB modules), I'd have to get a gun and shoot it - get my drift? Get more memory!



## MINIMALIST

**Q** I recently purchased a Dell laptop (WinXP Home, P4 3.2, 512MB DDR RAM, 64MB DDR FX Go5200 AGP) but I have problems running games. When it maximises it immediately minimises and sits there. When I try to maximise, it minimises again. After several attempts to maximise, it exits. I've tried running in a window and it works fine. And it has only started lately but I'm unaware as to what I've done to cause it. Any help would be great.

Steven Halliday

**A** There are numerous causes, one being that the screen is trying to change the resolution that the game is demanding but

the refresh rate is unsupported. Games that minimise to the desktop and exit under WinXP and Win2K are usually fixed fairly quickly with an official patch. Windows hotfixes Q828035, Q823182, Q824141 and Q825119 are also known to cause this problem. They can be uninstalled, via Control Panel > Add/Remove despite the popup warnings. Also, try closing any unnecessary tasks in the background, deactivate the Windows auto-update function and any other application that can access the internet. Lastly, run dxdiag.exe and check for any problems.

## IS RAM, IS GOOD



mmm RAM. No, we're not kiwis

**Q** I have the NF-7 MoBo and an Athlon XP 2500+ but what RAM I should get? Your wonderful mag suggests 512MB of PC3200 Corsair at around \$199. The PC3200 needs 400MHz, however the NF-7 runs on a 333MHz FSB with support for 333MHz and 400MHz RAM. I've been informed that it's good practice to match the MoBo's FSB with the RAM clock speed, so wouldn't it be better to go for the PC2700 RAM? Corsair have the 'XMS' and the 'XMS Low Latency'; what's the difference between these two types? Should I pay extra bucks for LL?

Peter

**A** Choose speed-matched RAM and select a CL2 rated DIMM, say, the CMX512-2700C2 module. It's latency timings are 2-3-3-6 T1 while the LL stick features 2-3-2-5 T1 timings. These numbers represent CAS latency - RAS to CAS delay - RAS Precharge - Active to Precharge - Command Rate. CAS Latency and Command Rate are the critical timings, with "2" and "T1" just right for amateur uber-gamers like you and me. Google on those other terms for further information.

## DURONIMO

**Q** A few months ago I purchased an ECS K7S5A MoBo and now I'm thinking of upgrading my Duron 1200 to an Athlon XP2400+ but I'm unsure if my motherboard would run it. Would I be able to just drop it in or will I have to update BIOS? My current BIOS is 06/26/2002. Can you guys help me out?

Phill

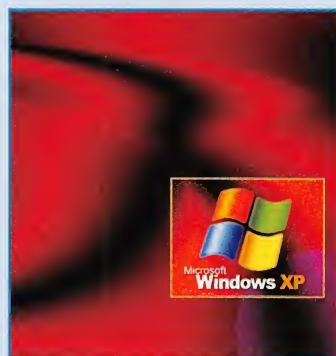
**A** Your board is a 266/200 MHz FSB model and can accommodate a Thoroughbred XP 2600+ 'AXDA2600DKV3C', with the 02/08/09 BIOS, but I doubt you'll find this 2600+. All of the 266MHz FSB Thoroughbreds are 'AXDA' models and beware of the 'AX' Palomino models which only run to 2100+. If you can indeed find a 2600+ or 2400+ at a reasonable price then the performance difference between them and your Duron would be noticeable. Don't forget 512MB of DDR266 RAM if you're currently using PC100 memory. Perhaps the greatest limitation to gaming will be your 4x AGP slot.

## BURN ME BABY

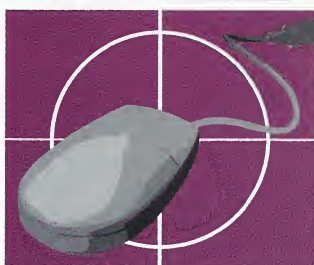
**Q** I recently installed the ASPI layer 4.71.2 on a Windows XP machine and now have trouble using the built-in burning features of Win XP, could you advise me of how to uninstall the ASPI layer, the system restore feature did not work.

Chris

**A** More for everyone else Chris, rather than just you, do NOT install Adaptec's ASPI unless you have an Adaptec product. Microsoft's SPTI or SCSI Passthrough Interface is what software developers are using, if not their own shell such as pfc.sys used by Padus in DiscJuggler. If an application \*needs\* ASPI then it's not worth the potential grief. The only apps I can think of that need it are XiT's DiscDump and some old Steinberg music programs. To remove ASPI use the batch files in ForceASPI (Google is your friend) run killASPI.bat first, then killDUMP.bat.







# The Hub

## YOUR MAJESTY

Last month we reported that Turbine had bought the rights to its Asheron's Call MMORPG back off Microsoft. This month they've decided to allow all AC players access to the content of the Dark Majesty expansion pack. What great guys!

## URBAN FALL

As part of cleaning up Britannia, EA has decided to implement a decay period on all Ultima Online players houses left untended for 90 days. After a further 5 days of decay, the house will collapse and become free land again. Urban sprawl is a blight on the UO landscape, so we say good riddance!

## Sim Vice

### Tales of grief from The Sims Online



**A**lthough The Sims is touted as a family friendly game without any content that could really offend people, the habits of players online are beginning to prove to be exactly the opposite. Although The Sims Online only boasts a rather feeble 80,000 subscribers worldwide as opposed to, say Everquest's 650,000, the former game appears to be home to far more "griefers" (players who make their fun by tormenting other players) and other undesirables than its larger relative. Not only are there the simple griefers, there are multiple Mafia style groups that charge protection simoleon money to harass and insult other players, a number of virtual brothels, some of which reportedly cater to those of a more deviant bent, fetish clubs and the like. What is truly interesting is the stance EA has taken against the behavior. They haven't done a thing, claiming that they can't monitor everything going on and they can only react to complaints. It seems pretty obvious that either nobody has made a complaint (which seems unlikely) or that EA are so desperate for subscribers to their dying game that they are willing to take money from just about anyone.



## Sociolotron

### Breaking every rule in the MMO language

**W**hat do online games and masturbation have in common? Everything, according to Sociolotronics, developer of the upcoming Sociolotron - a kind of Sims Online targeted firmly at the adult market (possibly cashing in on the above tales of woe). The basic idea seems to be similar; players create a character to interact with the virtual world, maintaining the happiness and other attributes of their avatar, building houses, going to work and the like. Where the two games differ is in approach. The Sims Online encourages friendships and cooperation; Sociolotron urges players to break all the rules, including grammar and spelling if the website is any indication. Players are actively encouraged to rape each other, engage in drug use and trafficking, murder, theft and all other manner of crime, though the developer is quick to point out that they will in no way condone any child pornography or prostitution. Even if the game is eventually released, a concept that currently seems rather doubtful, it's going to come under a lot of fire from censorship boards and family groups alike.

## Pimp or be Pimped

### Turn-based strategy with a twist in Bordello Battles

**I**f you're looking for something a little different and you're over 18 you should go and check out [www.bordellobattles.com](http://www.bordellobattles.com), an immensely addictive and surprisingly tactically deep game in which players compete to make the best little whore house in the city. Each game is played in rounds (each of which lasts for around a month) in which the player can use their accumulated money to trick out their bordello, hire some new "talent", put the scare

into an opponent's ho's, get some medical treatment for nasty communicable diseases and the like. Sure it's tacky and crass and not just a little politically incorrect but it's also a hell of a lot of fun. Due to the turn-based nature, players can approach each turn at their own pace, uploading their moves at will. There is a small fee to play but don't be afraid of being locked into long term plans. At \$2 a pop anyone can have a bash at being the best pimp in the hood.





# IGE buys Yantis

## As we faint at the sheer insanity of it all

**L**ast month we brought you a story about what was wrongly pitched as one of the first online virtual currency traders. We were wrong. Dead wrong. The whole phenomenon on virtual online currency exchange is far bigger than we thought, and far bigger than just about anyone could expect. We've known for a while that people have been trading their MMO characters, weapons and other property on Ebay and other online auction houses but what isn't as well known is the sheer amount of money that changes hands on a yearly basis during this activity. Are you sitting down? Around US\$400,000,000 annually. On Jan 22nd 2004, IGE (Internet Gaming Entertainment), one of the biggest, if not the biggest "gaming enhancement service" providers in the world announced that it was buying all of the properties, contacts, rights and assets of Yantis Enterprises, one of the original virtual property sales services, literally run from a suburban basement. Aside from making a lot of money, IGE also goes a long way to dispel that image of sweaty geeks in their parents houses with a face full of Doritos trading their characters, the multinational company has its HQ in Kowloon HK and employs more than 80 full time staff.



### CHEAP TIX

In the lead-up to the launch of Warbirds 2004, developer iNET has slashed subscription fees to its online flight sim series. Visit [www.warbirdsiii.com](http://www.warbirdsiii.com) and sign up for US\$13.95 per month (plus two weeks free) and get ready for Warbirds 2004.



### HEADS UP

Infinity Ward has released a new multiplayer mode for PCPP's (and PCPP's readers') Game of the Year, Call of Duty. Headquarters is a team-based mode where one side defends a bunker from the other team's attacking raids. We'll have it on next month's coverdisc.



### LIFELESS

Just hours before we went to press, Ubisoft announced it had pulled the plug on URU Live, the online aspect of its new Myst game, due to a lack of interest. We had already written a report based on our experience with URU Live, which you can read on page 88.

# Cyber Pet

## Is virtual training enough preparation for the real thing?

**A**lthough it sounds like the name of a bad 1980s action flick starring that little Asian kid who played Short-Round in Temple of Doom, Cyber Pet is actually a scheme cooked up by the kind souls in the British RSPCA to let people know if they are ready to actually adopt a real flesh and blood pet from one of their facilities. Players/prospective pet owners must log in at the site ([www.rspca.org.uk/cyberpet](http://www.rspca.org.uk/cyberpet)), choose a virtual animal they wish to adopt and then over the next 90 days they must take care of the animals and cater to their needs on a daily basis. Failure to live up to any of the duties will cause the animal harm in some way, hopefully letting the player know that they are not quite ready to take care of the real thing. It's a good idea in theory but an online pet isn't nearly as fluffy as a real one so it's inevitable that numerous subscribers will still get themselves a real pet whether they prove themselves worthy or not. All we need now is a site like this for people interested in having babies.



# Call of Duty Punk'd

## Cheaters doomed thanks to upcoming patch

**C**all of Duty is quickly gaining a lot of popularity as an online game but one problem that has plagued the game since its release is the number of cheats who run rampant. Fans of the WWII shooter need worry no more as Infinity Ward will soon be releasing a new online patch that will include support for Punk Buster, the most popular method of online cheat protection available today. There have been no details as yet as to when the patch is to be released but it shouldn't be too long at all. Once the patch is installed the community will be able to enjoy their game in relative safety - that is until some asshat discovers how to circumnavigate the protection and start cheating anew.



# NFS: Civilization 3: Conquests

Is it my turn yet?



**C**iv 3 is like a long train ride, you might get from A to B, the scenery might be nice and you might love the way it moves, but all of that fades into insignificance if you're sealed into a box full of jerks for seven hours.

Civ 3 just isn't designed to be played with some random guys you find waiting in GameSpy. If the skill levels are very different, then you can play for several hours only to get completely steamrolled in a very unsatisfactory way, or, you can be in the middle of a great game with everyone well matched and then watch the game fall apart after a player does something unwise and then leaves with the sulks.

Generally, this is so bad that if you want to play a decent game you have to join a ladder, just so people try to play it out ... which isn't often possible with the sweep of the Civ3. The short scenarios are better but they don't capture the same majesty as the classic game.

Having said all of that, there is nothing wrong with how Civ 3 works online, especially if you have all of the patches. Of course, you have to wait for people to do their thing (which can seem to go forever) but you can always set a turn timer to keep things going (at the expense of the thoughtfulness of the game).

All of this gets much better when you play with a bunch of people you know and love. Then at least you can hound any pikers mercilessly, chat during slow turns and even save a game if people have to bail.

Timothy C. Best

## RATING



## FOR

Bragging rights  
Strategic depth

## AGAINST

Slow  
Hard to find players  
who will stick with  
games

## OVERALL

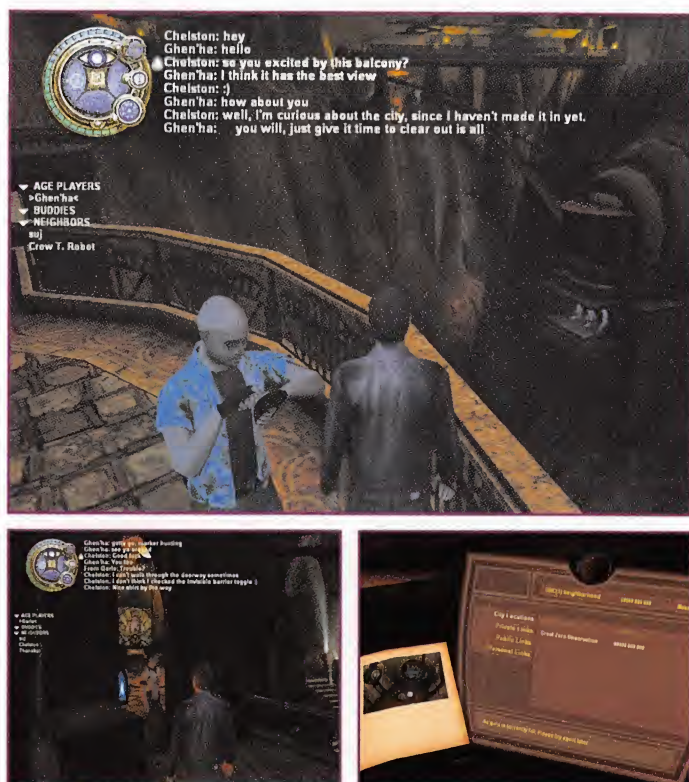
It all works, but Civ  
gameplay doesn't  
really lend itself to  
your usual online  
game flings.

62

Developer: Firaxis ■ Publisher: Atari ■ Distributor: Atari ■ Rating: G8+ ■ Price: \$49.95 ■ Available: Now

# Uru Live Prologue

Back to singleplayer for you



**U**ru: Ages Beyond Myst is a first of its kind, a title with a single player game and MMORPG in the same retail box. As I type there's no subscription service running meaning that players can only visit the free "Prologue" to the online game.

To say that you get what you pay for might be a tad harsh, but it's not too far off of the money. At the moment the only things that Live really adds to the game are: other people (when you can find them); a meeting place with a Rock, Paper, Scissor game; a small City that you can't get into 90% of the time because of the tiny population cap; and a collect-the-marker game that feels more like a way to get players into odd places as a stability test.

The community has started to come together for things like a dance class using the /dance emote but it's all pretty thin.

If you're feeling generous you can look at this as giving players an opportunity to get in on the ground floor, help build a community and do a final test for bugs. Since it's free, you might as well give it a go if you've forked out for Uru and if you have broadband. At very least you can go through the single-player stuff with a friend.

On the other hand, if you rushed the game home months ago on the strength of its advertised multiplayer component, then you have a right to be a little pissed since you paid for something the game is yet to deliver.

Timothy C. Best

## FOR

No subscription  
fee yet

## AGAINST

Still in testing  
phase, mainly  
limited to the  
single-player  
content

## OVERALL

Too young to  
seriously play yet,  
too young to  
seriously score.

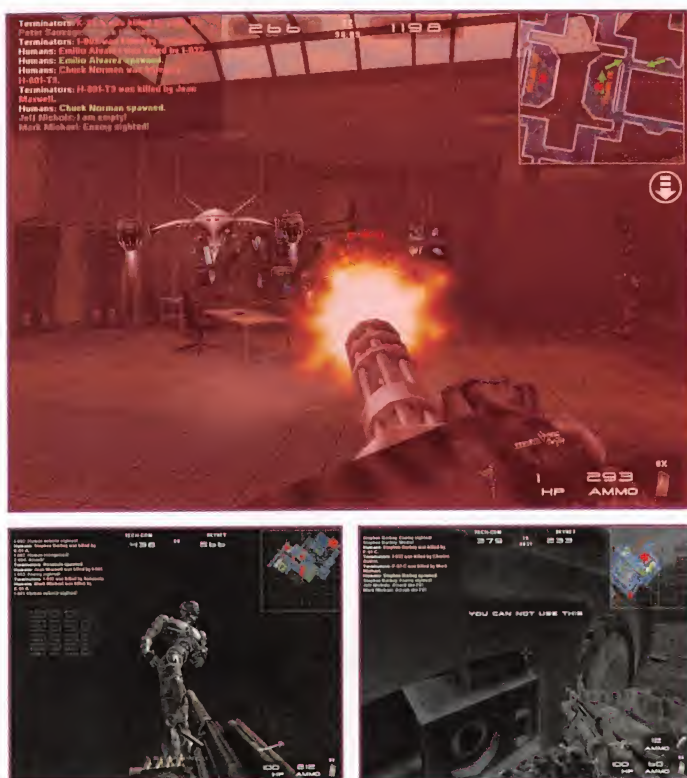
N/A

Developer: Cyan Worlds ■ Publisher: Ubi Soft ■ Distributor: Ubi Soft ■ Rating: M ■ Price: \$89.95 ■ Available: Not any more!



# Terminator 3: War of the Machines

Come with me if you want to live



**W**hen we first reviewed the steaming pile of (expletive deleted) that is Terminator 3: War of the Machines we had a hard time reviewing it online due to the extreme lack of servers available online. Now, a month or so on guess what? It's still bloody hard to find a server online. Whilst this is a little frustrating in a business sense it does go a long way to chasing away the post Christmas blues and assuring us that sanity has returned to the world. It seems that nearly any game, no matter how bad can have a solid following these days – hell, even Daikatana has a following but the fact that T3 doesn't have a following just goes to prove that PC gamers may be strange and obsessive, but they're not stupid.

Essentially a budget rip-off of Battlefield 1942, WotM pits a human and Skynet team against each other in supposedly deadly combat to decide the fate of the human race on some of the worst maps ever to disgrace a shooter. The vast majority of maps are nothing short of horrendous with unbalanced location of capture points, only one avenue of approach available and scores of dead ends making for a lot of down time and wasted space. There are nine classes available all up but with the exception of the Hunter Killer from the Skynet side they are all essentially the same, making for a rather dull experience. Unfortunately the netcode seems fairly stable so you'll have to actively quit playing instead of having this piece of dross do it for you.

Daniel Wilks

**RATING**



**FOR**

Makes CTU Marine Sharpshooter look vaguely competent  
Makes pretty lights if put into microwave

**AGAINST**

Makes CTU Marine Sharpshooter look vaguely competent  
Harmful if swallowed

**OVERALL**

Crap in every way, shape and form.  
There is no way to sugar coat T3: WotM so we won't even try – avoid at all costs

**18**

Developer: Clevers ■ Publisher: Atari ■ Distributor: Atari ■ Rating: MA 15+ ■ Price: \$89.95 ■ Available: Now

# Unreal II XMP

A snack to enjoy between Tournaments



**N**ow this is a strange one. A free expansion that finally brings multiplayer to this rather average game. Unfortunately, it's about a year too late...

XMP is based around a rather unique mode. Two teams face off against each other, both with a base at opposing ends of the map. Within the base is an artefact node, and the opposing team must pass through this node four times to collect various artefacts, and then bring them back to their base. However, things are a little more interesting thanks to the various generators and spawn points scattered throughout the map. The more your team controls, the more kickass the weapons that your engineer class can deploy. Capturing spawn points cuts down on the time it takes to cross the map, and these tend to be some of the most hotly contested points on the map.

XMP also introduces a couple of ground based vehicles to the mix. Sounds good, but they happen to be some of the worst handling multiplayer vehicles we've had to endure. Compared to Battlefield online physics, the vehicles in XMP feel distinctly amateur.

While it's a rather innovative concept, there is one major problem with XMP – it gets boring pretty bloody quickly. There are only a handful of maps, and they play the same way every time, with engineers setting booby traps around the artefact node.

It's obvious that we're not the only ones who tired of this game easily, as within a couple of weeks of its release the few Aussie servers that were up soon became barren wastelands, devoid of any players.

Bennett Ring

**RATING**



**FOR**

An innovative multiplayer mode...

**AGAINST**

That unfortunately gets boring all too soon.

**OVERALL**

Not worth buying Unreal 2 for.

**60**

Developer: Legend ■ Publisher: N/A ■ Distributor: N/A ■ Rating: M15+ ■ Price: Free ■ Available: Now



# Empires

For: Battlefield 1942 ■ Version: Public Beta ■ URL: [www.empiresmod.com](http://www.empiresmod.com) ■ Size: 138Mb ■ Score: 5/5

**E**mpires is without a doubt the most interesting mod to be released for Battlefield 1942 to date. Before any Desert Combat fans get up in arms we fully admit it's a great mod, just not particularly revolutionary. Empires is something fresh, different yet still easily approachable and massively fun. Combining elements of RTS and FPS, Empires charges one player on each team as the Commander, capable of giving orders to troops as well as building fortifications and other destructible buildings. To build the structures other players must capture various resource points scattered across the maps. Non-commander players can take the

role of Engineers, capable of repairing vehicles and structure, finishing buildings, dropping ammunition and building defensive turrets; Scouts, capable of disguising themselves as inanimate objects and artillery spotting; Medics, Assault and Anti-Tank infantry. Although the mod team isn't nearly finished implementing all they want in the finished mod, even at this stage of development, Empires is an absolute gem of game design and balance. Servers are a little hard to come by at the time of this writing but by the time you're reading this they should be cropping up everywhere, as well they should – Empires is destined to be a classic.



# Hostile Intent v1

For: Morrowind ■ Version: v0.23 Beta ■ URL: [morrowind.ttlg.com/registry/viewall.asp?page=17&order=id](http://morrowind.ttlg.com/registry/viewall.asp?page=17&order=id) ■ Size: 30Mb ■ Score: 3/5



**P**otentially the Forgotten Realms/New World Order mod has the ability to breathe some new life into Morrowind. Essentially all the mod does is change the setting from Bethesda's attractive yet sparse fantasy realm to the well known and much loved Forgotten Realms, the setting for such RPG greats as the Baldur's Gate series, Icewind Dale and Neverwinter Nights. At the current stage of development all the mod really does is change the names of some monsters, add in a few new ones (utilising existing skins), add a few new NPCs including the legendary Drow ranger, Drizzt, as well as some new quests, dungeons and a large landmass scarred by a meteoric strike. One of the best changes made by the mod does little but add some Forgotten Realms flavour, but the end result is quite tasty indeed – instead of choosing star-signs during character development, players now choose one a god to worship from the extensive pantheon of Forgotten Realms deities. The overall effect remains the same but it does definitely add a D&D like spin to the proceedings. The next release of the mod should feature new skins, meshes and the like so just think of the current release as a teaser of what's to come.



# Battlefield 82

For: Battlefield 1942 ■ Version: vA1 ■ URL: [www.bf1982.com](http://www.bf1982.com) ■ Size: 24Mb ■ Score: 4/5

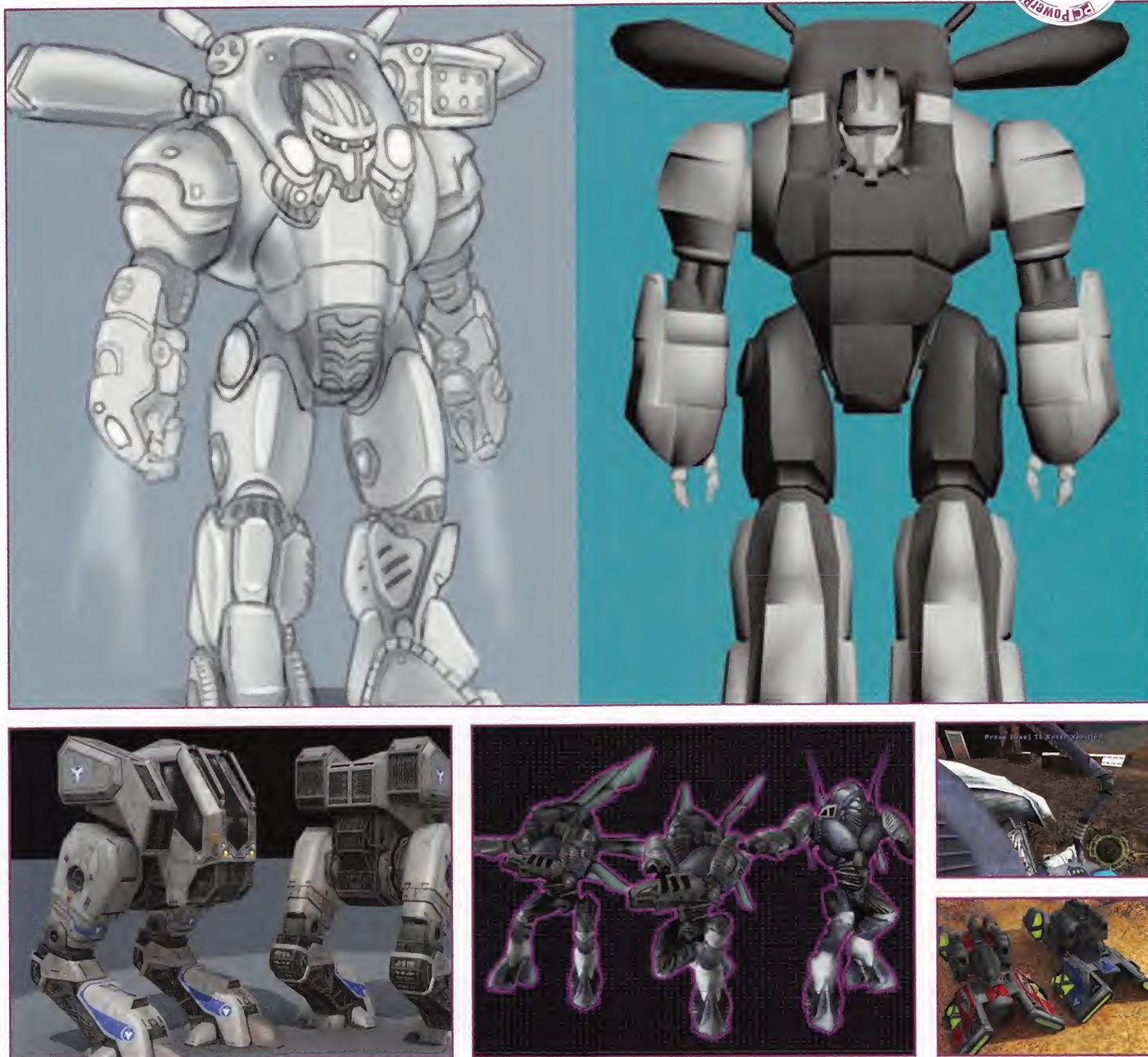
**O**K, so the screens may look a little bit crappy but if the legitimate release of Interstate '82 had been this good we would likely have seen far more commercially released, funky car combat games. Essentially Battlefield '82 is a stripped down vehicular combat game – players are either Vigilantes or Kingpins charged with the task of hunting down and killing each other and capturing vital petrol stations. Although the models for most of the vehicles and the maps are kind of blocky, in a kitsch kind of way they harken back to the archaic engines upon which the two games upon which the mod is based, making the roughness forgivable, if not kind of charming. Graphics aside, '82 is all about the cars and the mod comes through in spades. Each of the myriad vehicles is equipped with ram-bars, individual weapons and nitro canisters capable of giving them a quick burst of speed or even a jet assisted jump. The vehicle handling has been tweaked slightly in the mod to make for a more fast and furious game and the end product works a treat – the only thing that could make it better would be a funky soundtrack and Taurus kicking out some old school rhymes.





# Starsiege: 2845

For: Tribes Vengeance ■ Version: N/A ■ URL: [www.clancore.net](http://www.clancore.net) ■ Size: N/A



**A**lthough it's not usually our habit to preview mods (we much prefer to actually review them), every now and then a mod comes along (or is planned as the actual case may be) that is more than interesting enough to afford some hype. Although the game is still months from release, Tribes: Vengeance is already stirring up a massive amount of interest in and around the close knit (and some would say fanatical) Tribes community. The interest has gone much further than the usual hype on forums, however with the development of the Sierra sanctioned full conversion mod, Starsiege: 2845.

Whilst the fact that a mod is being made before the game it is for has been released is not particularly interesting in and of itself, what is of note is that the mod has been fully supported by the developer and at this stage it seems likely that it will actually ship in the box at launch. The development of the mod and Sierra's involvement becomes more interesting

when you consider that Michael Johnston, the Senior Designer of Vengeance and the man in charge of how the multiplayer component of the game will shape up, has a background as a modder himself – Michael's first involvement with Sierra and the Tribes franchise was creating a mod for Tribes 2 at the request of the publisher. Considering the fact that the mod team will not make any money from the project, even if Sierra/Vivendi chooses to release it commercially it seems fairly obvious that Clancore are looking to go the way of Johnston and catch the eye of the big boys.

If the quality of their work even at this early stage of development is representative of the team's level of skill then developers would be mad not to snap these boys up. At a recent press demonstration of Tribes: Vengeance in San Francisco we were privileged enough to see some screens, concept art and test footage from the mod and we are very impressed. Starsiege: 2845 harkens back to the early days of the

Tribes/Starsiege franchise, integrating mecha back into the multiplayer shooter. Players will have the option to pilot giant robots, planes, tanks or operate as well equipped infantry.

Although the game upon which the mod is something of an extension, Starsiege, is something of a dinosaur compared to today's games, it is still passionately embraced by quite a sizable online community. Much like the Tribes community, these Starsiege players are quick to correct any small slight made against their adopted game so Clancore has been very careful to remain somewhat faithful to the almost sim-like management of vehicles from the original game whilst still adopting the faster pace of Tribes. Due to an agreement with Sierra, Starsiege: 2845, although based on the UT 2003 engine will only be available for Tribes: Vengeance, so if you're looking for some giant robot shooting action you'll have to pick up a copy when it comes out at the end of the year.



# GARAGE GAMES

Into the unknown with George Soropos

## STARPORT

Developer: Playtechnics Genre: Space strategy URL: <http://www.starportgame.com/>



**T**his month our never ending quest to unearth the best independent games on the planet takes us into the far flung wilderness of Austin, Texas and the home of Starport's creators Playtechnics. Space strategy titles are rare in the MMO world, free-to-play space strategy titles are even more difficult to find making Starport quite unique. The game is also designed for people who like to see results, each game lasts only two weeks which means that you don't have to give up all your spare time to play and most importantly that the games are actually winnable!

Aaron Hunter and Scott Phillips are the main conspirators behind Starport and thanks to our alarmed but not alert colleagues in the US State Department we were able to extract this confession from Aaron at our interview facility in Guantanamo Bay.

**PCPP: Tell us a bit about Playtechnics and the sordid lives of indie game developers.**

Aaron Hunter: Sure, Playtechnics began in January of 2001 when I got laid off from my job as an AI programmer for Microsoft Games Austin. I was fed up with the lack of innovation, imperfect design, and confusion associated with large teams and corporate environments. I decided, win or lose, from now on, I make my games. The basic desire was to make a great game, and I began to feel more and more like the only way I'd be able to do that was to take full control. I've known Scott Phillips since we were teenagers and he had also been



floating around the games industry in Austin and Seattle. He had worked on Ultima Online at Origin. Starport was the result of wanting to make a STRATEGY game for the massively-multiplayer genre.

**PCPP: Starport is free to play, with the option that players can buy credits and upgrades with real**



**cash, why go down this path and how is it working out?**

AH: We got to thinking of the idea of optional payment after noticing how much gamers out there were looking for a free MMOG, and seeing how people were able to sell virtual items on eBay in other games like Everquest. We wanted to put as few barriers as possible between people who might be interested in playing Starport and allowing them to hop in and play. The system has been working out well. I think the players understand that by buying their character some extra resources in the game, they not only benefit themselves, but also help us keep up the development and improvements to the game.

**PCPP: How much of your valuable leisure time has been chewed up developing Starport?**

AH: Starport took about eight months of concentrated development by two programmers. Design work and groundwork for the engine can be traced back about a year and half. Five freelance artists contributed artwork under royalty contracts. The beta test lasted for 3 months.

**PCPP: How much input from your beta testers was put back into the game in the form of changes and improvements?**

AH: All sorts of changes have been made based on feedback from Beta

testers. Of course some suggestions are just not feasible, but most of them are actually pretty easy and if they fit with our philosophy, they get implemented as soon as possible. We could see what the most important changes were because multiple testers would suggest it. It's important to trust feedback, because after working so closely with a project you lose touch with what it feels like to pick it up for the first time.

**PCPP: With each game lasting two weeks how easy is it to find a fresh game if you are just starting out?**

AH: We're trying to start a game every 3 or 4 days. If the number of players goes up we can move up to a new game every day. It basically just depends on how many people are joining the games.

**PCPP: Which game would you say has had the biggest influence on the development of Starport and on your own design ideas?**

AH: Scott and I both loved the Star Control games, particularly Star Control 2, and it was probably an influence on Starport.

A big thanks to Aaron and Scott for doing the interview, grab Starport now and give it a try at <http://www.playtechnics.com/download.html>

### LIVE FOR SPEED UPDATE

**S**ome controversy has broken out in the world of Live For Speed over the decision to re-balance the control setup to put wheel and key users on an even footing. Previously key users had a small advantage over wheelies as the game 'helped' them along. Now that the latest patch has fixed the problem the inevitable wave of complaints from key users having



to compete on an even footing has become a rather amusing sideshow on the official forums: <http://forum.racesimcentral.com/forumdisplay.php?s=&forumid=205>



# BOOTCAMP

## Online Tips and Tactics

### LOCK ON: MODERN AIR COMBAT



You could read a dozen handbooks on fighter aircraft tactics, and still get p4wn3d in LOMAC. Bennett Ring offers some advice to surviving in the big blue. (Please note that we've focused on Air To Air combat.)

#### Getting it all going

LOMAC is a finicky beast when it comes to playing online. The most important thing to remember is to set your connection speed to 28.8, for both the clients and the host, even if you've hacked into a T1 connection. It appears to be a bug within the game, and if you don't remember to set your speed at 28.8 you can expect more warping than a Back to the Future movie. Being an UbiSoft game, you're expected to use the abomination that is ubi.com to join online games, but there's a far simpler, cleaner server interface known as HyperLobby. Grab it from <http://hyperfighter.jinak.cz/>, and you'll also find it on our coverdisc. If you want to host the game behind a router, make sure you forward port 10308, otherwise other players won't be able to connect to your server. Aim for a maximum of around eight players on a standard home broadband line.

#### Better Red than Dead

The Soviet aircraft appear to have a major advantage online thanks to the inclusion of Electro Optical Sensors, a totally passive system that detects the Infra Red emissions from airborne targets. Combine this with AWACS, and you've got the perfect method for ramming a missile up your opponent's tail pipe before they've got time to scream "I'm punching out Mav!" To use this deadly system, hit button 2 to activate Air to Air mode, and then hit O to turn on your EOS. If you're lucky enough to have AWACS support, get a bearing to the closest bogie and keep closing in until the tell tale bar shows up on your HUD. Just remember that EOS has a much shorter range than traditional radars, but its benefit is that it won't set off the pesky radar warning receiver (RWR) in your target's cockpit. If you don't have AWACS support, use your RWR to get a vector to the bad guys. It's always fun to occasionally flash your radar at the enemy perps, just to freak them out as you appear and then suddenly disappear from their RWR screen. Try to keep out of the enemy's radar cone, be it via flanking or using the terrain to block radar returns. When you're



getting up close and personal with a capitalist pig, use your helmet mounted SCHLEM system to pull off shots that are way outside of your HUD - this is usually a decisive tactic when engaged in a WVR (Within Visual Range) dogfight.

#### A long range fight

The main strength of the F15 is its powerful radar, giving it the edge in the BVR (Beyond Visual Range) arena. To make the most of this, make sure you're flying nice and high to avoid ground clutter. Stock up on AMRAAM missiles, and use the radar's TWS (Track While Scan) mode. This allows you to keep track of several bogies without setting off the radar lock warning in the filthy red communist's, erm, opposition's cockpits. Once you've tagged a few bogies in this mode, you're able to launch missiles upon several targets at once (up to eight targets in fact), a strength that the Russian aircraft lack. Try not to fire your AMRAAMS until the targets are at a range of approximately 15 nautical miles - even closer if you're flying low (as the missile won't have the benefit of gravity to help it reach the target). If you find the AMRAAM to be a toothless dog, stock up on the Sparrow missiles, as these tend to hit the target more often. The only problem with the Sparrow is that you've got to maintain lock until the time of impact, unlike the fire and forget AMRAAM. By which time you've



probably got a few enemy missiles to contend with. Finally, the Russian ECM in the current version (1.01) is a little strong, making it quite difficult for Eagle drivers to keep the fight long range, but hopefully by the time you read this it'll be fixed.

#### That's right, I am dangerous

Fly high or low, but not in between. If you're flying low you've got a good chance of sneaking up on the enemy undetected, especially over undulating terrain. Fly high and your missiles will travel further and faster, and you've also got plenty of height to convert into speed when you're trying to outrun that six foot tube of death now homing in on your tail. Incoming missiles will also bleed off much of their energy when trying to reach you up high, making them slightly easier to evade. Fly at medium altitude and you make a nice target, although it might be necessary at times to line up incoming targets.

#### Shoot-dodging

Avoiding missiles is tricky at the best of times, damn right infuriating at the worst. If you detect a missile lock at the maximum range of your enemy's weaponry, the safest bet is to pull a 180 degree turn, point the nose



down a little and punch your burners to get the hell out of dodge. As a result you'll most likely outrun the fuel-deficient little sucker.

At medium range it's wise to try beaming the missile, which means you've got to fly perpendicular to it (keeping it at either your 3 or 9 o'clock) - this can break the radar lock, and also makes the missile work hard, bleeding off its available energy. When you're close enough to smell the jet exhaust of a missile, say a few Hail Mary's and get ready to eject, although pulling a barrel roll, spin or even a break turn at the last second can help. Regardless of range, use your countermeasures as if they're going out of fashion, and remember to turn off your burners if you think the incoming missile is a heater (Infra Red seeker).

#### Final prayers

Fire your missiles later rather than sooner, and you'll find the pK (probability of kill) goes way up. Fire too soon and all you do is decorate the landscape with pretty, smoking, missile craters. Also learn the ins and outs of each aircraft, as they all handle very differently. Learn the best cornering speed, as these planes often turn very slowly when flying too fast. Finally, where possible, use teamwork. Try to use one plane as a decoy, while the other members of your flight sneak up unannounced. A lone target is an easy target.



# THE PCPP INTERVIEW

Game Designers are a mysterious bunch; we know they've got a cool job, but we're not actually sure what that job is. **Bennett Ring** had a chin wag with Brad Welch, the Lead Designer at Pandemic Studios, to find out more about this elusive trade.

## Curriculum Vitae

Name: **Brad Welch**  
 Title: **Lead Designer**  
 Company: **Pandemic Studios**  
 Location: **Brisbane**  
 Projects: **Shareware games, Kingdom At War, Dark Reign, Dark Reign : Rise of the Shadowhand, Army Men RTS**

Which games have you worked on in the past, and in what role? Which of these was your favourite? What was it about that title that makes it special to you?

**Shareware games** - 2D Artist & Level design

**Kingdom At War** - Designer / 2D Artist

**Dark Reign & Rise of the Shadowhand** - 2D Artist (also did some map design for web add-ons)

**A bunch of unpublished projects** - Designer, 2D Artist, Lead Artist

**Army Men RTS** - Lead Artist

**Current project** - Lead Designer

My favourite overall experience was probably **Dark Reign**. I got to work with a great bunch of people, many of whom have since landed at Pandemic. It was my first experience of the wider games industry and bigger teams. Before that I had only worked on smaller, locally produced games. We got to go to the US and work with the team at Activision for a month or so, which was an eye opener. Basically I learnt a lot on this project and worked with a lot of good people. It wasn't always fun mind you, but it was my favourite experience.

What are the various roles of a game designer? Obviously you don't spend all day, every day thinking of new ideas to base games around. If you do, you're even luckier than we imagined.

The idea that game designers just come up with ideas for games is a common misconception, it's probably one of the smallest parts of the job. Considering the length of time it takes to make a game (1.5 to 3 years), pitching new game ideas is probably the smallest part of a job - often you will be working with a pre-existing franchise and genre, so sometimes pitching new game ideas doesn't happen at all. Another thing to mention is that it's usually not just designers that come up with a game idea, the rest of the team has input too,

but a lead designer or producer will usually pull it all together into a pitch. Now that may sound disheartening to some, but it shouldn't - pitching new ideas is not the most fun part of being a designer at all, making an actual game is! The key areas of the design job are:

**Designing game systems** - traditionally this was just the Lead Designer's job, but games are becoming large enough that systems are given to members of the design team to plan out.

**Scenario / Mission design** - planning out a mission and seeing it implemented in-game. Different companies and different game genres will split the work done by a designer and the work done by a level artist differently. Each of our designers works in conjunction with an artist when building environments and planning mission layouts for their missions. The designer plans out their mission, works with the level artist on the layout and look of the mission, then plan out what they need from art and programming to build it. This gets negotiated a bit, and then the designer implements the mission using various tools and a scripting language.

**Configuration & Tuning** - this is a huge part of the job, and personally the part I find the most fun. Whilst some game systems are fun out of the box, many often aren't, and only become fun by tuning them. A paper design is really just a plan, implementing the design and seeing it working (or not) is where it really all happens.

Is it frustrating having to tailor your initial game ideas to fit the constraints of the available technology, not to mention budgets? What limitations of technology do you find the biggest hurdle right now?

Not at all. The constraints are where the challenges come from, and they give you a start point to design from.

Technology limitations have never stopped the flow of good games at all, so I don't think it is that big an issue anymore. Improvements in AI, physics and world simulations are the things that improve with technology advances and allow designs to open up more, allowing the scope of a game design to become bigger, and for a game to become more immersive.

Describe the procedure you use when designing games, right from the initial idea through to signing off on the gold master disk. Is it a team effort, or are you largely responsible for the overall design? First up, let me say that games are totally a team effort. You need people at the helm of a game, but everyone brings things to the game they are making. As a designer I like getting all the differing viewpoints thrust upon me, since it's likely that those playing the game will have just as diverse a set of ideas about what a good game actually is. The design team is ultimately responsible for the design of the game though, the buck stops with me on the design of the game.

The start of a game can vary - sometimes it comes from the developer and is pitched to the publisher, sometimes it comes from the publisher and you pitch your take on it back to them. Once the publisher decides they want to do the game with you and a deal is done (and this is not a short nor easy process, publishers have to pony up many millions of dollars to make a game), you go into pre-production. For design this is developing the design doc, the rough story, and working on the prototype of the game. The prototype of the game is used to prove that the concept is fun and is something that can sell. Then you move into production.

How does someone become a game designer? Are there enough positions in the industry for the position of game designer to be a

realistic career goal, or are people more likely to win their fortune in the Lotto than score this dream job? Most people become game designers through strange and convoluted paths, it's just some weird industry norm. It's a tough job to get into, but it's not impossible, all designers have to start out somewhere! The best things that you can have in your folio are:

A selection of mission, scenario or level designs for an existing game. Preferably with an original or interesting twist to them. The actual game you do them for will often not matter, just design for the games you like the best.

Designs for pen and paper RPGs or board games are a plus.

Making your own demo for a game is another good avenue to get into game design. You also need to be able to write well, put your ideas down on paper, and work well with others. Game making is a collaborative effort, and as a designer you need to be able to cope with technical, art, schedule and marketing issues.

Getting a job in QA is a somewhat common route at larger companies, giving you exposure to the pressures of game development and the sorts of issues designers confront.

How do you feel about the thought that games are becoming less innovative, with publishers more comfortable pumping out sequels and clones of existing titles? Do you feel game design is stagnating? There's always been clones and there's always been innovative titles. An evolutionary game can be just as much fun as a totally innovative one. The huge increase in the cost of making a game in recent years (with game prices staying the same) means that publishers are being a lot fussier and more reluctant to take on original titles. It's a hard call, there have been a lot of good games out this year, and I think that's the most important thing. It depends on what you mean by innovative as well - I like games that evolve existing genres at a high level of quality, it's pretty rare for a completely new type of game to come along.

Name your top 3 game designers, and why you feel these guys are so good.

I don't know the names of a lot of the individual designers on games, I tend to follow developers more than individual designers but here goes.

Shigeru Miyamoto / Nintendo Japan - especially the Zelda games on





SNES and N64. The guy has headed up so many good games over the last 20 years, either as designer or producer.

Bioware / Black Isle design teams - I am an old school RPG fan and these guys are at the top of their game. Baldur's Gates, Planescape: Torment and now Knights of the Old Republic. Immersive, engrossing plots and lots of exploration.

Looking Glass / Ion Storm Austin - ever since Ultima Underworld these groups of guys working with Warren Spector have made brilliant, immersive games. The high points for me were both System Shock games and Deus Ex. Terra Nova was pretty engrossing too.

**If you had infinite computing power at your fingertips, what kind of game would you like to design?**  
I have always wanted to do a huge

scale, intricate cyberpunk/SF shooter/RPG, like System Shock or Deus Ex with a fully realised urban world ala Morrowind.

**How do you know what gamers want from their games? Is it based on previous sales, critical acclaim, focus group research, or other techniques? Or is it because you're a gamer (are you?) that you simply know what makes for a captivating game experience?**

A bit of all of that. You need to rely on your instincts a lot, but you also need to be able to gauge when your instincts are wrong. Sometimes your personal gaming preferences are the same as the game you are making, and sometimes they aren't. If you get focus testing saying your game is hard to play or convoluted, you need to be able to take that on board. The

most honest and often useful response you can get to a game is someone coming in and playing it for the first time - it's the same response someone who buys the game, unwraps it and plays it will have.

**If somebody thinks they've got a killer, original idea for a game, how do they sell it to a publisher, without having the idea ripped off?**

To be honest, you can't sell that killer idea to a publisher these days. If you think it's an idea that's totally original, you should try and make it into a demo or prototype, and see if it's still a killer game then. Even still, the design is only one aspect of pitching a project, you need a company that can last the course of the project, you need a skilled and disciplined dev team, and you need a lot of luck. There are two ways to get an original game made:

a) Work in an established company, pitch it if and when the opportunity arises, and maybe they'll go with it - realising that at that point it is no longer your idea, it's the company's, the teams and probably ultimately the publisher, or

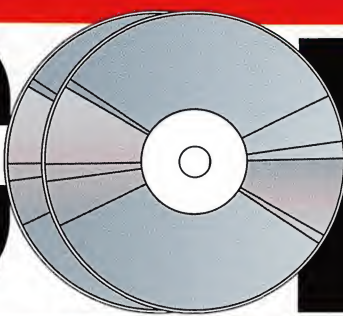
b) Fund it and make it yourself.

As for having an idea ripped off, when you work for a games company, they will own anything you develop at work. Publishers (at least the reputable ones) won't steal your idea, it opens them up to lawsuits - usually when you pitch a game or see one in development there are non-disclosure agreements that prevent either party discussing what they see.

**Can I come and work with you guys?**  
Yes. I mean no. What was the question again?



# THE DISC



## REQUESTS

We welcome requests so please forward your requests to Disc Producer Amos Hong via email at [cdgod@next.com.au](mailto:cdgod@next.com.au) or write to PCPP DVD Requests, 78 Renwick St, Redfern NSW 2016



**T**wo DVDs, that is over 9GB of disc space. Lucky for us there were some rather large files available, like the Far Cry demo. We also took this opportunity to dedicate a section of the disc to a special edition of Mod Life and special utilities.

This month's Spotlight includes the near 500MB Far Cry single player demo. From the amount of requests for this demo, I had to include it on the disc. Aside from Far Cry, there are several trailers to view. You cannot miss episode 13 of Anachronox, as this is the final episode in this series. There are also trailers for Splinter Cell: Pandora Tomorrow, Battlefield Vietnam, Lineage II and Star Wars: Battlefront. Also, check out the Making of Ultima X-Odyssey.

There are a couple of good demos on this month, starting with the Prince of Persia: Sands of Time demo. This is a very good game, and now

everyone can enjoy a piece of the Prince. There is also the demo for The Titans, which is an expansion pack for the highly successful Age of Mythology.

Half Life. That is the theme for our Mod Life this month. There are over 30 of some of the best mods for Half Life on the special bonus disc. The mods range from classics like Counter-Strike to new ones like Project Timeless and Underworld Bloodline. Of course our regular Mods Plus section is still around on Disc 1.

Aside from the normal selection of Utilities, there is a special section for some benchmarks and tweaking tools. There are over 40 utilities this month.

Gotta go, Bennett's puking all over me...

**Amos Hong**  
Disc Master  
[cdgod@next.com.au](mailto:cdgod@next.com.au)

## Benchmarks

3DMark03 v3.4.0  
3DMark 2001 SE  
AquaMark 3  
Bench'emAll! 2.5  
Dacris Benchmarks 5.0  
Fresh Diagnose 6.0  
FFXI - Vanadiel Benchmark 2 v1.01  
GL Excess XSMARK v1.2v  
Harbinger  
MasmoBench 4  
PCMark 04 v1.1.0  
PCMark 2002  
PerformanceTest 5.0  
SANDRA Standard 2004  
SCSITool  
SynthMark XP 1.0.0  
TweakBench  
UT2K3 Benchmark  
VulpineGLMark  
XMark 7.0

## TWEAKS

TuneUp Utilities 2003  
Tweak Manager 2.1  
Game XP  
Safe XP  
Tweak-XP Pro 3.0.2c  
Tweaking Toolbox XP 1.50  
Tweak UI 1.33  
X-Setup Pro 6.5 Beta  
BoostXP  
PC Optimizer  
Internet Tweak 4.40  
Download Boost



## CD CONTENTS

### CD 1 DEMOS

Far Cry SP  
Age of Castles  
Crazy Taxi 3  
Fast Lanes Bowling

### CD 2 DEMOS

Breed SP  
Prince of Persia: Sands of Time  
Smuggler 3

### MODS

Banshee Wars [Halo]  
C&C Retribution [C&C:  
Renegade]  
Public Enemy [Max Payne]

### PLUS MODLIFE

Empires [BF:1942]

### PATCHES

Unreal 2: XMP v7710  
Call of Duty v1.2 Multiplayer  
Hidden & Dangerous 2 v1.03 - v1.04  
Magic: The Gathering - Battleground v1.4  
Tiger Woods PGA Tour 2004 v1.1

## DVD CONTENTS

### DISC 1 SPOTLIGHT/ MOVIES

Far Cry SP



### TRAILERS

Anachronox - Part 13 of 13  
Battlefield Vietnam  
Delta Force: BHD - Team Sabre  
Final Fantasy Unlimited  
Kombat  
Lineage II  
Painkiller "Catacombs"  
Splinter Cell: Pandora Tomorrow  
Star Wars: Battlefront  
Making of Ultima X - Odyssey  
Ultima X - Odyssey

### DEMOS

Chicago 1930  
Chrome MP  
Fast Lanes Bowling  
Kelly Slater's Pro Surfer  
Vietcong Fist Alpha  
Smuggler 3  
Space Haste II  
World Championship Pool 2004  
Age of Castles  
Age of Mythology: The Titans  
Castle Strike  
Crazy Taxi 3  
IVM CE  
Prince of Persia: The Sands of Time  
Silent Storm  
Starship Tycoon MODS PLUS

C&C Retribution [C&C:  
Renegade]  
Banshee Wars [Halo]  
Forgotten Realms [ESIII:  
Morrowind]  
Interstate 82 vA1.6 [BF:1942]  
Public Enemy [Max Payne]  
Swat Police Unit [RS: Rogue  
Spear]

### PLUS MODLIFE

Empires [BF:1942]

### PATCHES

Unreal 2: XMP v7710  
Call of Duty v1.2 Multiplayer  
Hidden & Dangerous 2 v1.03 - v1.04  
Magic: The Gathering - Battleground v1.4  
Tiger Woods PGA Tour 2004 v1.1  
Battlefield: 1942 v1.6.19  
Black Hawk Down v1.5.0.5  
Delta Force: BHD - Team Sabre v1.5.0.5  
Raven Shield v1.0 - 1.52 [US]  
Raven Shield v1.51 - 1.52 [UK]  
Total Club Manager 2004 v1.2

### BONUS DISC

### HL MOD LIFE

Steam Client with Full Steam  
Cache  
Half Life: Uplink Demo  
Action Half Life  
The Battle Grounds v1.2.1  
Bumper Cars v1.5  
BuzzyBots v2.3  
Counter-Strike 1.5  
Desert Crisis v1.5  
Deathmatch Classic  
Day of Defeat 1.0  
Digital Paintball v2.0  
FireArms v2.8  
Gangwars v1.4

Gladiator  
Hostile Intent v1  
International Online Soccer 3.0  
Kanonball v1.0  
Monkey Strike v1.2  
Natural Selection v3.0  
Outlaws v1.5  
Open Source Jail Break  
Poke646  
Point of View v1.1  
Project Timeless v1.0  
Ricochet  
Science & Industry 0.97b  
Snow War v2.0  
The Specialist 2.0  
Sven Co-op v3.0  
Tour of Duty 1.2  
Underworld Bloodline v2.0  
Vampire Slayer Chapter V  
Wanted!

### UTILITIES

Adobe Acrobat Reader 6.0  
Advanced Zip Repair 1.6  
AutoDivX Player 3.6  
Catalyst Radeon Display Driver 4.1 7.97  
PlanetBattlefield QuickMatch  
DivX Player (with DivX Codec) 5.1.1  
DirectX 9.0b



GameSpy Arcade v1.4  
HyperLobby Pro 3.5.60  
Windows Media Player 9  
Winamp 5.01  
WinRAR 3.2  
Winzip 8.1  
Zip Repair 1.0 UTILITIES



# NEXT MONTH

SUN	MON	TUE	WED	THU	FRI	SAT
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			29	30		

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# How To Make a Game

It's a lot easier than you might at first think



The boots and I have been writing this column for the best part of three years now, and in that time we've visited more than thirty brave (and now mostly bankrupt) Aussie gaming start-ups, each with a different and progressively whackier concept for a world-beating game.

In all this time, the boots and I like to think we've developed a considerable amount of expertise in the matter of games creation. We've come to know what makes a classic, and what makes a sure-fire 'bargain bin special'. So it's with this in mind that the boots and I would like to present our definitive guide to making a game. Follow these instructions to the letter and success - of a sort - is all but guaranteed...

## The Concept

This is the most important part. Start well here and the ball (of money) is well and truly rolling. You need to think carefully about your concept - are you a poor, totally independent self-starting company? Or are you a semi-independent studio making bargain bin hits for media monoliths like EA? Perhaps you're just an up-and-coming programming whiz-kid duo financed by either your or your partner's rich daddy. This part of the concept will heavily influence the second part of the concept - where to build your studio. You could take a leaf from Same Differential's book and set up shop on a sand island where no large buildings are allowed. Or you could be like Code Warriors, and already be in possession of a \$1.4 million Strathfield mansion. Think carefully about colour, the placement of faux-antiques. Think about fire exits. A lot of the teams I visited had clearly not thought enough about fire exits.

## The Characters

This is another vital area of consideration. Too many developers just employ bland, efficient talented coders to get their games done. Sure, with people like that on the team you do actually meet deadlines, but without a really memorable development cycle, what's the point? I mean, think about Klepto Studios, producers of Mall Keeper 2004. Every single one of those amazing kids was a chronic shoplifter. They're currently beta-testing the game IN GAOL. How cool is that?

If you're having trouble finding some decent characters with even rudimentary computer skills, try this: Go in to any major university, find an IT lecture hall full of third year students and a fire hose and apply the one to the other. Most of the kids will run screaming from the onslaught of freezing water, but if there's one who just sits there and takes it full in the face wearing a slightly stupid grin, you should immediately hire him as your lead programmer.

## The Pitch

Of all the many and varied pitfalls facing new development start-ups, this one is the easiest to avoid. It's simple really - you will eventually have to present your new game concept to a publisher in order to get some kind of assurance from them that the thing will actually appear on shelves after you've sunk a million bucks developing it.

It's vital to plan ahead. Go to a really classy brothel with really attractive and exotic girls, and hire half a dozen for the day. Give them nice suits and titles like "Business Administrative Assistant." Then, when you turn up to make your pitch, half your team will still be unspeakable, sure, but the other half will be REALLY HOT and ready to do ANYTHING to get the game approved. Try and find a girl who does the ping pong ball trick - that always works, and looks great across a nicely polished conference table.

## The Venture Capital

For this section I rang my good friend William Liability, who heads up indie publisher Blind Drunk. He says that most VC is so hideously, rampantly carnivorous that you're better off getting your money from organised crime.

"I came in to work one day to find my VC guy actually chewing on my leather sofa," says Liability. "I offered him one of my sandwiches but he said he needed the tanning agents to maintain his complexion."

By contrast, most mobsters are actually polite, friendly guys with kids, who can easily be dissuaded from breaking your kneecaps with a judiciously offered PS2 or Xbox, or the odd DVD of DivX porn.

## The Licensing

Since Big Media pretty much owns every concept ever thought of in the history of human endeavour, odds are that no matter what the actual content of your game, you will have to license some portion of it. For instance, IBM owns the expression "Person to Person" while Sony Online Entertainment recently successfully copyrighted the expression "levelling treadmill". LucasArts owns the phrase "graphical adventure", as well as "Star Wars", "Star", "War" and "Wars". The word "wars" without a capital isn't copyrighted, but most publishers agree that war has to be spelled War to make in impact on the market, so be sure to set aside a couple of mil for the rights to "Wars".

By the time this goes to print, id Software will have finally TMed the words "gun", "shooter" and "rocket launcher", so what I guess I'm saying is



that you should allow at least 80% of your budget for licensing.

## The Scam

This aspect of development is not compulsory unless this is actually the way you plan to run your company. The Scam was first pioneered by Ion Storm during the development of Daikatana, although they did eventually fail by actually releasing a game within the typical ten-year 'scam cycle'. The world's most famous Scam still running is of course the development of Duke Nukem Forever, although some suspect that 3D Realms is cheating by actually working on other projects while still receiving financing for DNF.

Running a small-scale Scam is risky, especially if you have significant VC or mob money. However, it's useful if no one in your company actually knows how to produce games, how to program, or even how to draw. You'll need to hire a freelance artist to do a nice logo and mock up a few screenshots, but apart from that mostly all you'll have to do is sit back and watch the money roll in, pausing only for nerf wars.

## The Game

Actually, this is the least important part of the whole development process. If you do manage to hire an interesting bunch of people, rent and decorate a funky office, hire-purchase equipment that's actually appropriate for the kind of game you want to do, get a bunch of money, get a publisher and STILL have time on your hands, sure, knock something together. You could even go as far as mastering it, sticking it on a gold CD, and flinging it in the post to a distributor. Then, six to eighteen months later, you can experience the rare but warm feeling of walking into an Electronics Boutique and watching no one buy it.

Well, I hope all this helps. For me, games development has always been about the people, the crazy antics, the japey, the occasional spot fire and the inevitable fleeing the country when the tax man finally catches up with us. THAT'S what games development is all about, and to a lesser extent, it's what gaming journalism is all about too. Get into it!



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